

**A COMPARATIVE STUDY OF THE RESTRUCTURING OF THE  
IRISH AND DANISH DAIRY PROCESSING INDUSTRIES: A  
REGULATIONIST APPROACH**

**Thesis submitted for the degree of Doctor of Philosophy at the  
University of Leicester**

**By**

**Patrick G. Enright, Dip. Dy. Sc., BA, MA.  
Department of Geography  
University of Leicester**

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*“He watched her pour into the measure and thence into the jug rich white milk, not hers. Old shrunken paps. She poured again a measureful and a tilly. Old and secret she had entered from a morning world, maybe a messenger. She praised the goodness of the milk, pouring it out. Crouching by a patient cow at daybreak in the lush field, a witch on her toadstool, her wrinkled fingers quick at the squirting dugs. They lowed about her whom they knew, dewsilky cattle. Silk of the kine and poor old woman, names given her in old times. A wandering crone, lowly form of an immortal serving her conqueror and her gay betrayer, their common cuckquean, a messenger from the secret morning. To serve or to upbraid, whether he could not tell: but scorned to beg her favour”*

(Joyce, 1922, 20)

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## **Abstract**

A Comparative Study of the Restructuring of the Irish and Danish Dairy Processing Industries: A Regulationist Approach

By Patrick G. Enright

Using a regulationist approach, the concept of the Mode of Social Regulation (MSR) is explored in a cross-national comparative context. Increasingly, the national MSR is subject to global regulation and this study seeks to identify the form and outcome of the national MSR for the dairy processing industries of Ireland and Denmark. The approach permits contrasts in the MSRs and their outcomes to be developed in two comparable, yet different contexts. The MSR is addressed empirically by sub-dividing it into five elements (market and competition, financial relations, labour relations, policy, and adhesion to the global regime) as outlined by Marden (1992), in addition to hegemony. The elements are explored through in-depth interviews with key actors in the dairy supply system in both countries. The study shows that, even though both national dairy processing industries are subject to the same supranational and global regulation, different national MSRs have evolved and resulted in markedly different development paths for the two national dairy industries. National and local regulation have had a strong influence on the national MSRs; however, both national MSRs have become increasingly integrated into the global dairy market. In addition, new MSRs do not represent a clean break with past MSRs; rather they build upon and are contingent on past MSRs. The research has found that the type of accumulation also has a significant influence on national MSRs and a distinction is drawn in this thesis between producer-led accumulation and investor-led accumulation in the dairy processing industry. As the national MSRs have evolved, hegemony has shifted from a group or coalition of national organisations and dairy processing companies to globally-orientated and integrated companies.

## Abbreviations

CAP	Common Agricultural Policy
COGECA	Comité General de la Co-operation Agricole de la CEE
EU	European Union
GATT	General Agreement on Tariffs and Trade
ICOS (formerly IAOS)	Irish Co-operative Organisation Society
IDIA	Irish Dairy Industries Association
PLC	Public Liability Company
MNE	Multinational Enterprise
MSR	Mode of Social Regulation
SMP	Skim Milk Powder
WMP	Whole Milk Powder
WTO	World Trade Organisation

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## **Chapter 1**

### **Introduction**

In the late 20<sup>th</sup> Century, the restructuring of industry has been a prominent feature in the economies of the developed world. Companies grow, decline, shed some activities, diversify into other activities, acquire other companies, or are acquired by other companies. As a result, individual industries may become more or less concentrated, more or less internationalised, or more or less linked globally or nationally. Such restructuring significantly impacts locally, regionally, and nationally through employment, linkages to local suppliers and services and linkages to related industries. There are also wider impacts in terms of ownership, control and influence over production and consumption.

Restructuring applies to all industries, including those closely linked to agriculture and food production. Food based industries, such the dairy processing industry, often have strong rural connections and, in some cases, are owned and controlled by agricultural producers. However, while such industries have strong local ties and have developed very much within a national context, they are increasingly exposed to supranational and global influences. This thesis seeks to develop an understanding of the forces driving industrial restructuring, and the outcome of such restructuring. The experience of the dairy processing industry in recent times is taken as a case study, while, a regulationist perspective is developed.

The regulationist approach has emerged in geographical research over the past decade. The regulationist approach has provided a framework to understand the complexities of capitalism in a global context, while taking account of particular national and local regulation that shapes responses and, in turn, shapes the impacts of evolving capitalism. The concept of the Mode of Social Regulation (MSR) has been developed to describe the institutional arrangements and the modes of behaviour that regulate, and are associated with, a particular regime of accumulation. The regulationist approach has been able to take account of the complexities of capitalism, on the one hand, while incorporating national and local regulation. However, within the regulationist

approach, the concept of the MSR has not been well developed or explored empirically. It has remained an abstract concept used principally at a theoretical level. There is, therefore, a need to explore this concept in an empirical setting. In this thesis, the concept of MSR is explored, and an attempt is made to uncover the form of the national MSR, in an increasingly globalised context.

The context for national MSRs is evolving. National MSRs are set in an increasingly liberalising, global regulatory context, that has expanded to include agricultural and food products since the early 1990s. They are also set in increasingly influential supranational regulation such as the EU or NAFTA. In the case of the EU, the Common Agricultural Policy (CAP) has been, and continues to be very significant for agriculture and food. In addition, companies, and in turn industries are increasingly integrated into global markets as they internationalise and seek to achieve economies of scale and accumulate internationally.

For industries such as the dairy processing industry<sup>1</sup>, there is the additional challenge of seeking to expand and accumulate internationally, while operating within the financial and strategic limitations of co-operative ownership. Also, the customers of the dairy industry - large food companies or retailers - are dominant figures in the food supply system due to their scale and market power. By comparison, many of the dairy processing companies are relatively small in scale, and do not possess the market power or financial resources of their customers.

In this evolving environment, it is important to understand the influence of national regulation and its impact on the MSR. As industries are subject to increasing global regulation, and are themselves globalised, how relevant and influential is national and local regulation? How has the MSR evolved as global and supranational regulation has become more significant? This study will examine the influence of national regulation in this context and the changing form of the MSR. In addition, there is the issue of type

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<sup>1</sup> For this study, the dairy processing industry is used to refer to companies that engage in processing milk (for example, drinking milk, cultured milks or cream) or manufacturing milk products (for example, cheese, butter, yogurts, milk and whey powders, etc).

accumulation, which emerges as an important part of the MSR. Is there a difference between accumulation in producer-owned companies and investor-owned companies? How does the influence of owners, who are also suppliers, resolve itself in accumulation strategies?

The MSRs of the dairy processing industries in two of the smaller member states of the EU are examined in this comparative study. A comparative approach is appropriate to permit contrasts in the national MSRs and their outcomes to be developed in two comparable, yet different contexts. For both countries Ireland and Denmark- the dairy industry has been, and continues to be, an important part of the economic, social and cultural development of that country. The industries have existed in both countries for well over a century; therefore, the development of each national MSR can be examined over a long time period. Both countries joined the EU at the same time in 1973, when their dairy industries became subject to the market organisation of the Common Agricultural Policy (CAP). Therefore, since 1973, both industries have been subject to the same supranational and global regulation, but have followed markedly different development paths. This thesis will seek to explore the form and the consequences of the MSRs for the development of the two industries. Therefore, the central research question of this thesis will be:

*“How can we explain the evolving forms and consequences of national MSRs for the dairy processing industry in Ireland and Denmark?”.*

The research question is addressed by sub-dividing the MSR into six elements (i.e. monetary and credit relationships, the type of competition, the wage-labour relation, the mode of adhesion to the global regime, the form of state intervention and hegemony), and establishing the changing form and outcome of each of the elements and for each of the industries. The elements are then reintegrated to identify the MSR for each of the industries. In addition, by comparing the MSRs of the respective industries, additional insights can be gained into the differing forms and outcomes of the MSRs.

Relevant literature in economic geography, and more specific literature on the regulationist approach and the Mode of Social Regulation, are reviewed in Chapter 2. In Chapter 3, recent developments in the food industry are reviewed, based on empirical work in geography and related fields. The methodology used to operationalise the concept and identify the form and outcome of the MSR is discussed in Chapter 4. Regulation at the global and EU levels for the dairy industry are set out in Chapter 5 and the Danish and Irish dairy processing industries are set in the context of the European industry. In Chapters 6 and 7, the establishment and subsequent development of the Irish and Danish dairy processing industries are reviewed, based on empirical sources. The Mode of Social Regulation (MSR) and its outcome based on primary research, and supplemented by secondary sources, are set out for both national industries in Chapters 8 and 9. In Chapter 10, the MSRs for the Irish and Danish industries is compared. Finally, in Chapter 11, key conclusions of the thesis are discussed.

## **Chapter 2**

### **Theory in Economic Geography for the Food Industry**

#### **2.1 Introduction**

Recent theoretical developments in economic and industrial geography, relevant to a study of the food industry (agribusiness), are reviewed in this chapter. The review concentrates on theoretical developments considered appropriate to the food manufacturing and processing part of agribusiness. This approach recognises the synthesis provided by Wallace (1985) but argues that theoretically informed analysis of agribusiness and the food industry has been neglected. This neglect stems in part from the focus by industrial and economic geography on the dynamic and footloose high technology and automobile industries, as reflected in the emphasis of much recent research in these sub-disciplines.

Theoretical developments in economic and industrial geography are characterised by an increasing emphasis on understanding change (restructuring) as having locally specific impacts within a global capitalist system. Theory has evolved from an understanding of industrial location at the firm level, in neo-classical approaches, to an exploration of broader processes and forces within a structuralist framework. Thus, following a brief review of some important neo-classical models and approaches, the contrasting structuralist approach is discussed. The regulationist school and the debate on a perceived shift in the regime of accumulation as applied to the food industry, is examined. The globalisation of the world's economy and the increasing recent attention to place specific studies at local, district, regional and national level is also examined. In conclusion, the theoretical approach that can best provide an explanatory framework for this thesis topic is discussed.

#### **2.2 Neo-Classical Approaches**

Economic and industrial geography was firmly based in, and dominated by, neo-classical theory until the 1970s. Neo-classical theory simplified the complex economy into a few

central relationships that could be easily subjected to statistical analysis (Sheppard 1990). While neo-classical theory has considerable limitations, and has been overtaken by more recent theoretical developments, it does however provide a useful perspective in understanding fundamental tendencies at firm and industry levels. Neo-classical theory in economic geography was based on location models, which sought to explain and predict the location of economic activity. Three relevant models are briefly discussed here: least cost, demand maximisation and product-profit cycle. Then the influence of the behavioural approach is discussed.

First, the **least-cost model** of location emphasises the role of transport costs in determining the optimal location for a plant or firm. The optimal location will be the least total cost location based on the relative costs of transporting raw materials to the processing plant and finished product to markets. Smith (1966) developed Weber's (1929) idea on optimal location to the more realistic notion of 'margins of profitability' on a space-cost curve within which location would be appropriate. He also extended Weber's analysis to include all types of costs and acknowledged the distinction between basic and locational costs.

Second, the **demand-maximisation model** presumes that firms locate on the site that provides access to the largest possible market (Smith 1971). This model is relevant for firms selling to many dispersed customers. The desire to be close to the market may outweigh the benefit of accessibility to the raw materials, labour or other agglomeration economies.

The implications of these two models for the food industry are manifest if Burns's (1983) classification<sup>2</sup> of food processing firms is applied. Burns classified firms in the food industry into two types: agriculturally oriented and consumer-oriented food processors.

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<sup>2</sup> Burns (1983) classifies firms in the food industry into two types of sector. Firms are either agriculturally oriented or consumer-oriented food processors. The former are concerned with getting reliable supplies of produce, processing them at minimum cost, often relying on by-products for profit. The latter produces identifiable, differentiated, packaged-food products for a competitive consumer market.

Food industries that are agriculturally orientated and use bulky, perishable or weight-losing raw materials will find the most profitable location near the raw material site, based on the least-cost model. Economies of scale distort the expected pattern of location for the agriculturally orientated food industry. Larger plants require more specialised and a greater quantity of labour. This fact, in combination with agglomeration economies, would modify a rural location pattern to an urban location in an area where the required raw materials are available (for example, the emergence of an agro-industrial complex based on tulip bulbs north of The Hague in the Netherlands). On the other hand, consumer-orientated food industries, where access to the consumer is critical, would be expected to locate near the market to maximise demand (for example, breweries generally locate in urban areas).

While location models are useful in understanding location at the individual firm level, they fail to take account of the broader economic, social and historical context. The models are based on classical assumptions<sup>3</sup> that have failed to materialise in every region of the world (Berry 1989). In particular, reduction in the relative importance of transport costs has made the least cost model less relevant in today's location decisions. Location models fail to take account of the dynamic nature of, and the role place plays in, economic activity. Mistakenly, these approaches imply that activities once formed must then find a place to locate (Storper and Walker 1989).

Third, theory based on the general concept of 'cycles' to explain industrial location and economic change uses a recurring theme in neo-classical approaches, namely the notion of cycles<sup>4</sup> through which products (Vernon 1966), industries (Markusen 1985) or technologies (Kondratieff 1935) evolve. For example, Kondratieff cycles, or 'K' cycles, explain economic change in terms of long-term recurring economic cycles. Long waves (Kondratieff cycles) occur every 50 years; each wave is associated with a set of significant

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<sup>3</sup> Classical assumptions include homogeneous firms, products and technologies; perfect information and factor mobility; inexhaustible entrepreneurship and resources; absence of economies of scale; risk free economic rationality and static profit-maximising equilibrium (Berry 1989).

<sup>4</sup> A phased series of stages through which a product, industry, technology or region evolves.

technological innovations with regard to products, processes, communications or organisation. Following the Second World War boom and the recessionary decades of the 1970s and 1980s, a fifth wave is expected. Mensch (1979) elaborated on the notion of 'K' cycles and argued that, in a recession, the fall in profits drives a search for investment and innovations. This results in a bunching of innovations and the beginning of a new Kondratieff wave. This approach stresses the importance of history, but on its own does not assist in the understanding of spatial relationships.

The **product-profit cycle model** was developed by Markusen (1985); it applied to industries as a whole and their regional agglomerations and attributed locational tendencies to each stage of the cycle. It suggests that firms in any industry go through four successive stages of development: (1) innovative, (2) market penetration, (3) market saturation and (4) rationalisation stages. During the **innovative** stage of an industry, the emphasis is on design and commercialisation of a new product. In this stage, there is a concentration of the industry in relatively limited areas. During the **market penetration** stage, output increases and then stabilises as the industry moves to mass production and market penetration. The industry tends to decentralise from its innovating centre towards nearby peripheral sites in the same region to take advantage of lower cost locations. In the **market saturation** stage, firms vie for market share through competition or through oligopolistic practices. Decentralisation of production accelerates, while activities concerned with market and strategic management remain at the centre. In the final **rationalisation** stage, intense competition reduces prices and profits. Firms respond by diversifying product lines and by reducing capacity and costs. The level of employment declines, as production is re-concentrated in a few locations.

The product-profit cycle is well grounded empirically and has widespread applicability to many industries. However, there is little underlying explanation of the sequence, duration or geography of the stages (Thompson 1989). In an application of an industry life cycle model to the Petrochemical industry, the model was useful in identifying the internal dynamics of industry evolution but many external factors, often political in character, could not be accommodated within this framework (Chapman 1992).

Some sectors of the food industry are in the latter stages of the product-profit cycle. Industries such as dairy, meat and bakeries are long established and, while new products and new technologies emerge, they still display the rationalisation feature of later stage industries. Locationally and structurally, these industries are increasingly characterised by fewer large-scale plants. However, there is also a growth of small and medium sized firms in these sectors serving speciality and niche markets. On the other hand, some newly emerging sectors in the food industry, such as convenience and speciality foods, display features of the earlier stages of the product-profit cycle. Many are small scale, urban or locally concentrated processors and display a high degree of innovation.

Dissatisfaction with the neo-classical approach and location models led, in the 1970s, to the adoption of **behavioural approaches** to the study of location and locational change. In the behavioural approach, the individual is considered to be the principal factor in economic affairs. The motives, values, preferences, opinions and perceptions of individuals are investigated and generalisations about economic behaviour are interpreted. Two important areas of concern have emerged: decision-makers do not have perfect information (or perfect ability to use it) (Pred 1967), and an attempt is made to satisfy multiple goals when making a location decision. Entrepreneurs are likely to be satisfiers rather than optimisers, that is, they make the best decision they can, based on the information available to them (Healey and Ilbery 1990). For example, in a study on labour productivity in farms in central Sweden, Wolpert (1964) found that farmers did not achieve profit maximisation and were not focused on that objective. While behavioural approaches have enhanced the understanding of locational change, they are limited in accounting for widespread restructuring that can sweep industry. In addition, the variety of behaviour exhibited by multi-locational companies is not easily accounted for by the behavioural approach.

As discussed above, neo-classical approaches have considerable limitations. The reality is that capitalism is much more complex than the relatively simple relationships examined in neo-classical approaches (Sheppard 1990). Despite these limitations, neo-classical theory does offer pertinent insights relevant to the food industry. Rather than abandon the insights, issues such as individual firm level decisions, industry cycles, and growth of

small and medium enterprises (SMEs) should be placed in the broader social and economic context of more comprehensive theoretical approaches as now discussed.

### **2.3 The Structuralist Approach**

Despite its radical base, structuralism became the accepted approach throughout the 1980s, even though many researchers did not accept its underlying ideology (Morris 1988). In this section, the basis and principal concerns of structuralism are outlined. Then, the concepts of the international division of labour, the branch plant economy and the role of transnational corporations (TNC's) are critically examined. The debate on the globalisation of the world's economy is reviewed and the relevance of this approach to the food processing and manufacturing industry is examined.

In the structuralist approach, explanations of economic patterns and processes are related to the underlying structure of society and to economic and social relations. Structuralists are concerned with the macro economic processes that underlie spatial patterns of economic activity, although the details of spatial impacts are not always analysed. Production itself is analysed rather than location factors. Labour and the nature of the labour process is regarded as a key element in the production process: the drive for the generation of surplus results in the seeking out of low cost labour locations and leads to the international division of labour.

The new international division of labour had become the new orthodoxy by the end of the 1970s. The view was applied spatially at global, national and regional levels. However, in retrospect, the new international division of labour is regarded as a hasty generalisation of global structuralism. Its application ignored characteristics of local society, role of local state, and the nature and links of local social arrangements (Lipietz 1993). Morris (1988) doubted that a new international division of labour ever existed, as the majority of manufacturing capacity remains located in the developed world. Also, much manufacturing is carried out by indigenous SMEs and the role of labour has been overstressed as a locational determinant at the expense of the role of the market.

There is some evidence of a new division of labour at the interregional level. However, the typecast of a peripheral branch plant poorly integrated in the local economy with part-time and predominately female labour is not consistently borne out by empirical analysis. More empirical verification is needed, because of the preference for theoretical construction rather than empirical analysis in the Marxist tradition. More empirical work is needed, especially on industry outside of the multinational sector (Morris 1988).

In the structuralist's perspective, the TNC is a central actor in economic restructuring processes. The concept of the new international division of labour has been combined with internalisation of linkages in the large enterprise. As a result, the large corporation has been integrated into a long run vision of uneven development (Walker 1989). More recently, however, it is recognised, that large firms are only one part of the space economy and the virtue of being a large firm does not hold explanatory locational power. The isolated branch plant economy has become less relevant with the rise of new agglomerated, flexible production complexes. While corporate organisation can be regarded as a locational influence, it needs sorting out from other forces such as technology, labour relations and competitive conditions (Walker 1989). The restructuring, dismantling and vertical and horizontal disintegration of the 1980s challenged the view of large firms dominating the industrial world. This trend also tied in with the recognition of the transformation in the regime of accumulation from Fordism to flexible specialisation (see section 2.4).

Applying these concepts to the food industry, the sector is highly concentrated: a few large firms dominate some sectors of processing and production on a continental scale in Europe and North America (Wallace 1985). For example, Nestlé and Unilever are two of the largest food companies in the world that dominate certain sectors of the food industry (see Chapter 3 for a detailed discussion of the structure of the food industry). However, the concept of the international division of labour is not applicable to the large food TNCs. While it is difficult to generalise in such a diverse industry, there is not a tendency for low skilled assembly type operations that are footloose, as found in the high technology and other sectors. The high capital-to-wage ratio, the need for skilled labour, access to raw

materials and/or access to markets, and the importance of historical and place-specific factors in firm development, results in the food industry being less spatially dynamic<sup>5</sup>. The concept of the international division of labour, therefore, does not seem so relevant. Nevertheless, the structuralist perspective does provide a comprehensive and relevant explanatory framework within which to discuss the food industry.

### 2.3.1 *The Globalisation Debate*

A major theme recently in industrial and economic geography has been **the globalisation of the world's economy**. It has emerged primarily from the structuralist literature and elaborates on the role of TNCs in the world economy. There are various interpretations of globalisation and ways of defining the central actors in globalisation. Globalisation is evident with the emergence of a global division of labour, an international financial system and a system of global production. Traditional, technological, deterministic explanations based on life cycles and "K" cycles appear to be too simplistic to explain this trend. It can be argued that globalisation is the outcome of interaction of TNCs and nation states set in a volatile technological environment (Dicken 1992). However, globalisation has been interpreted in a number of different ways from a 'borderless world view' (Ohmae 1990) to a view of economies networked with other economies throughout the world (Comor 1994; Castells 1996). Others view globalisation in a wider sense, including the integration of cultural forms and practices that follows integration of world markets (Featherstone 1990; Wallerstein 1991). Others equate globalisation with homogenization and capitalist economic forms, markets and relations across nations (Fukuyama 1992). This trend toward globalisation is primarily the manifestation of the internationalisation of capital as organised through business enterprise (the TNC in particular). Globalisation is facilitated by new developments in technology, particularly developments in communications media that have had space shrinking/compressing consequences.

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<sup>5</sup> However, the industry is subject to restructuring, especially in recent times (see chapter 3).

However, it is important to recognise that there are different types of international corporation. Le Heron (1993) identifies multinational companies (MNCs) and transnational companies (TNCs), the former relating to companies involved in a number of countries and the latter related to companies with global activities. Dicken *et al* (1994) identify three types of transnational organisation; (1) multinational, (2) international and (3) global corporations. **Multinational** organisations operate as a decentralised federation with overseas operations relatively independent. In **international** organisations, which function as a co-ordinated federation, overseas operations are appendages to a central domestic operation. **Global** organisations are more highly centralised with tight control over overseas operations, which are closely integrated into the global organisation.

For the local or regional economy, an important aspect of TNCs is the degree of local embeddedness. The mere fact of being a TNC does not predetermine a low degree of local embeddedness. Supplier relations in particular, but also how the organisation co-ordinates its operations, and the policies of the host state, are the major determinants of local embeddedness (Dicken *et al* 1994). Since raw materials for the food industry are often supplied locally, the degree of local embeddedness may be quite different to that of other industries.

The local embeddedness of production filières can be explained partly by the notion of 'institutional thickness'. Emerging out of the local embeddedness literature in an urban context (Amin and Thrift 1995), institutional thickness refers to the "totality of formal and informal institutional structures and competencies in a region" (Jones and Clark 2000, 2). Amin and Thrift (1995) identify four key factors that contribute to institutional thickness: (1) a strong institutional presence, (2) a high level of interaction amongst the institutions, (3) well defined structures of domination and coalition building, and (4) common objectives based on a strong sense of place. McLeod (1997) considers it a powerful tool to interpret local and regional governance, but identifies difficulties in its institutional emphasis, in measuring the softer aspects, and in its applicability to less favoured regions. The concept has been further refined by (Jones and Clark 2000) in delineating the difference between consensus or concrete institutions. The former refers to socially

accepted solutions to specific problems and the latter refers to formalised (legal) expression of locally brokered consensus.

Hirst and Thompson (1999) reject globalisation as expounded by the extreme globalisers as a “myth”; rather they argue that highly internationalised economies are not unusual, genuine TNCs are rare, there is no great mobility in investment, and trade is concentrated in the West and is not global in the true sense. Amin (1999) disagrees, challenging the importance of TNCs in the global economy and the failure of Hirst and Thompson to understand the qualitative difference between now and the past. Whatmore (1994) takes a less definitive view of globalisation, arguing that it is not a logical process; rather, it is a feature that is socially contested and the strategies of corporate capital are increasingly contested by other interests.

Turning more specifically to global trends in agriculture and food, McMichael (1994) views agricultural and rural food systems as being transformed globally through the reorganisation of markets and technologies, increased flexibility in production and marketing, and more specialisation in food systems. This transformation is taking place in an era of declining national regulation, while global regulation through the GATT/WTO framework has become more important. The global-level transformations are linked to wider economic transformations associated with the decline of the politically managed model of mass production (i.e. Fordism). Central to these changes in agriculture and food is the role of TNCs and continuing corporate concentration. McMichael (1994) links corporate concentration to the inelasticity of food demand and corresponding growth strategies of value adding, leading to multiple banking and generating new flows of capital and technology to food producers and regions.

Le Heron (1993) has a more dualistic outlook on globalisation. Globalisation in the agro-food system has two opposing tendencies at its core: the equalisation of conditions of production and consumption (which in turn drives restructuring and competitiveness), and the differentiated penetration of activities by capital (encouraging restructuring which accentuates the differences spatially). Le Heron (1993) strongly emphasizes the global

nature of the agro-food system in that the forces organising agriculture are global forces; the main organisations bringing about change are global organisations, and the contemporary form of agriculture often involves an integrated, global, agri-production system.

While capital circulates globally, it must do so locally in territories where production takes place; therefore, global accumulation is linked locally to the nation state. Le Heron's (1993) globalisation perspective establishes the centrality of local interactions and the links that follow; in other words, global forces find local expression in local changes while local responses may alter global processes. The global–local interactions bring into focus the local struggles and local regulation that result in particular local outcomes. Whatmore's (1994) understanding of globalisation in a European context supports Le Heron's view. She argues that globalisation, as a homogenising process, is inappropriate in a European context because of the diversity of food consumption and production practices. Therefore, with the globalisation process and consequent restructuring of rural Europe, the focus is on differentiation and not homogenization.

The globalisation of production and consumption takes place in a contested arena between transnational corporate capital and institutional farming interests. Alliances between consumer and environmental interests are beginning to challenge the hegemony of industrial or productivist agriculture (Whatmore 1994). For example, a study of pork production in Iowa testifies to the contested nature of economic development as localities actively shape industrial development (Page 1997).

There are differing views on the importance of the TNC in the agro-food sector. For Traill (1997a), a truly global economy would include multinational enterprises (MNEs) targeting homogenous global consumer segments with manufacturing located so as to minimise production and transport costs. He argues this does not exist, as many food products are bulky and perishable; transport costs are therefore more important than labour costs. Watts and Goodman (1997) argue that there are a few food TNCs that have global marketing strategies and conform to the transnational model but:

*“few food manufacturer companies or retailers conform to the industrial model of trans-nationalisation; that is centralised, global intra-firm divisions of labour, with production based sourcing of intermediate components from specialised sites for final assembly”* (Watts and Goodman 1997, 15)

Pritchard's (1996) study shows that even where TNCs might be expected to be dominant, producer co-operatives can be resilient and restructure to retain control of the national milk industry. However, others argue that transnational capital through the TNCs has replaced the state as the defining space for economic activity and capital accumulation (Heffernan and Constance 1994). The major actors in the agro-food chain are the TNCs not the state, especially with the development of new technologies such as biotechnology (Busch 1997). This debate is considered further in Chapter 3, where empirical evidence of restructuring and change in the food industry is taken up in more detail.

There has also been a revival of interest in **small and medium enterprises** (SMEs). Three types of explanation have been put forward to explain their growth: (1) recession push, (2) income growth and (3) technological change theory. In **recession push** theory the recession increases redundancies and unemployment, and the lack of job opportunities drives individuals to set up small businesses. **Income growth** theory proposes that the rise in incomes over the last few decades led to a demand for varied and customised goods that are best provided by small firms. **Technological change** theory is based on the emergence of flexible technologies, which are suited to small firms. The new technologies allow small firms to respond quickly to changing market needs.

Theories on the growth of SMEs do not take account of the likelihood that some may be the result of vertical disintegration of large firms. The firms are then very dependent on TNCs for their growth and survival. The growth of farm-based food processing (e.g. farmhouse cheese and yoghurt) may be related to recession push theory. Reduced profitability for farm activities, due to the cost-price squeeze, may be driving farmers to

control more of the food supply chain. The result is small-scale vertical integration in an attempt to improve income.

In sum, the structuralist approach has broadened our understanding of economic and industrial location processes, though it has done so initially at the expense of over generalising at a global level. Recent debates on globalisation have re-emphasised the importance of global-local interaction. However, more recent theoretical developments (although within the structuralist tradition) in the regulation school have provided an alternative theoretical base to examine these global-local issues.

#### **2.4 The Regulationist Approach**

The regulationist approach has its origins in structuralism and has come much to the fore in recent times. The basis of regulation theory is outlined in this section; then the regime of accumulation and the mode of social regulation (MSR) are explained. The transition to post-Fordism, as well as the reasons for the transition, are discussed. In conclusion, the application of regulation theory to the food industry is examined.

There are many different interpretations within regulationist thought, but the approach is particularly concerned with "the changing forms and mechanisms in and through which the expanded reproduction of capitalism as a social relation is secured" (Jessop 1990, 154). The concepts of 'regime of accumulation' and 'mode of regulation' are used to understand the problematic reproduction of capitalism. A 'regime of accumulation' is when "a relatively equilibrated development of the different departments of production and sectors of economic activity" exist (Dunford 1988, 354). A particular regime is associated with a certain regularity in the decisions of individual and collective actors in which a certain outcome is expected.

Institutional arrangements and rules of behaviour are considered a 'mode of regulation' that facilitates the reproduction of capitalism. A mode of regulation includes mechanisms connected with the governing of the wage relation, monetary mechanisms and competition

(Dunford 1988). However, through its concept of societalization (or society effect), the West German school of regulation theory allows exploration of not just economic aspects but of society as a whole. Modes of social regulation (MSR) are a product of the political process and are associated with the hegemony of a particular social bloc (Lipietz 1993). The term bloc here implies a group or coalition of interests. Tickell and Peck (1995) have defined the MSR as:

*“Comprised of a complex ensemble of social norms and habits; state forms, structures and practices; customs and networks; and institutionalised compromises, rules of conduct and enforceable laws”*

(Tickell and Peck 1995, 360)

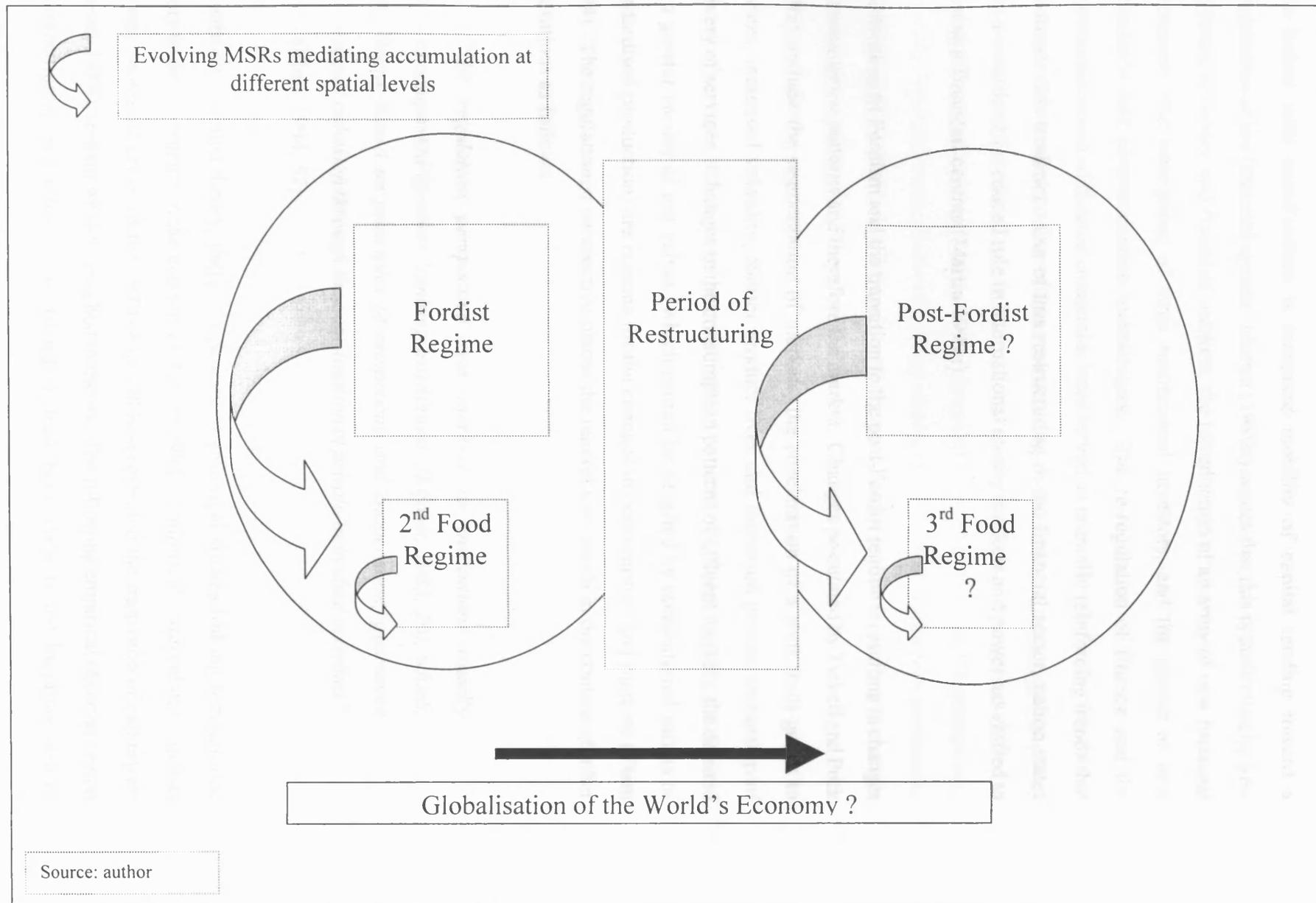
This definition emphasises the social as well as the institutional aspect of the MSR. More specifically, Marden (1992) has listed five elements that constitute an MSR, namely: (1) monetary and credit relationships, (2) the type of competition, (3) the wage-labour relation, (4) the mode of adhesion to the global regime, and (5) the form of state intervention. However it must be recognised that the state is the major factor in regulation. Regulationist theorists, therefore, believe the main forces for change occur within national economies that in turn shape the world economy.

The MSR is central to understanding how regimes of accumulation are regulated. However, the concept has been neglected (Tickell and Peck 1992) and there has been a failure to specify the elements composing an MSR (Bowler 1994). There are also some difficulties with the concept. It implies a completed system as opposed to one in formation or one that is contested on an ongoing basis. The notion of contrasting modes succeeding one another is unrealistic, as modes are more likely to be built on each other. Periods of relative stability in an MSR are rare and the concept suggests structure over strategy. The notion of the MSR as a process rather than an outcome needs to be stressed (Painter and Goodwin 1995). Bowler (1994) emphasises the need for analysis of the MSR to incorporate regulation as a social practice; he found that a coalition of interests often lies at the centre of an MSR. In addition, some groups who are ineffective in contesting an MSR

bear its costs. Peck and Tickell (1994) argue that the MSR in post-Fordism has yet to stabilise, therefore it is premature to talk about a post-Fordist regime of accumulation.

A focus of much debate in regulationist literature has been the transition from Fordist to a post-Fordist or Flexible regime of accumulation. Capitalist economies are characterised by a succession of accumulation regimes (or modes of production), exemplified recently by a shift from Fordism to the more flexible post-Fordism. Other previous stages have been manufacture and machinofacture. Transition periods between phases are important and are characterised by crises and intense restructuring (see Fig. 2.1), often leading to decline in industrialised areas and growth in emerging areas. Fordism, for example, is a regime of accumulation associated with mass production and, subsequently, mass consumption (Harvey 1989). In Fordism, the workforce is polarised spatially, with unskilled employment located in the periphery, where cheaper labour is available, while highly skilled employment is located in the developed core. In the post-Fordist or the Flexible regime, flexibility in the organisation of production and labour are regarded as key features. Increasingly flexible approaches to labour concentrates on flexibility in employment and work; for example, an increasing tendency for temporary employment, part-time work, sub-contracting and outworking. Pollert considers this deregulation of existing employment practices as an offensive on labour organisation and employment (Pollert 1999). Other labour practices associated with post-Fordism include Total Quality Management, Just In Time Management and Quality Circles. These practices require increased participation by employees and encourage creative involvement in lower level decision making and problem solving. Also a return to craft type labour application has been linked to post-Fordism. These labour practices increase the flexibility of firms to respond to market needs; however, Tomaney (1994) does not consider that outcomes are beneficial for employees. Boyd and Watts (1997) examined the level of flexibility of labour in the US broiler industry and found a mix of 'bloody Taylorism' and varied contractual arrangements.

**Fig 2.1. Regulationist Debate on the Evolution of Regimes**



Also linked with post-Fordism is increased mobility of capital tending toward a globalisation of the financial system. Martin (1999a) argues that this is facilitated by a re-regulation of money and financial markets, the introduction of an array of new financial instruments, the emergence of large institutional investors, and the spread of new information and communication technologies. The re-regulation of finance and the internationalisation of finance companies have served as mutually reinforcing trends that accentuate this tendency. Out of this restructuring in the financial sector, nation states have a considerably reduced role in international money markets and power has shifted to the major financial centres (Martin 1999a).

The breakup of Fordism and the transition to the post-Fordist regime is resulting in changes in consumption patterns and therefore the market. Changes postulated by Tickell and Peck (1992) include the segmentation of markets, the acceleration of a shift from goods to services, increased volatility, shorter product lives and increased private ownership of delivery of services. Changes in the consumption patterns of affluent workers, the demand for a greater variety of use values (which cannot be satisfied by conventional means of standardised production) are reasons for the changes in consumption and markets (Elam 1994). The regulationist perspective places the market very much in the context of other institutions as follows:

*“the regulation perspective sees markets as institutions usually encompassed by other ‘limiting institutions’ (Mjoset, 1985, 20), which, being based on principles of reciprocity and cooperation, guarantee social cohesion through the coordination of private/individual activities”.*  
(Elam 1994, 57).

As with structuralist theory, there is a paucity of empirical studies linking regulationist theory to developments in the economy (Bowler 1994). Empirical observations, such as the way economic crises of the 1970s and 1980s accelerated the transition of capitalism (Harvey 1989), remain weakly attached to theory. The following empirical observations on the transition from Fordism to post-Fordism have been made in the literature: out of

Fordism new investment became job replacing, resulting in falling demand and an increasing duality in the workforce; this new regime transformed the rigidities of the Fordist regime to a flexible regime; increasingly flexible practices were adopted in both small and large firms in relation to labour, technology, inter-firm relations, the market, capital tied up in inventories and mobility of capital between sectors.

The spatial implications of flexibility, particularly in regard to technology, subcontracting and just-in-time (JIT) are for greater agglomeration (Gertler 1992). Growth, however, is uneven and in the same region there can be sharp differences between newly industrialising zones and depressed areas. New technology allows sophisticated control over production processes, which permits flexibility in switching production between different products easily (Dicken 1992). While goods can be cheaply manufactured on a smaller scale, thereby contributing to economies of scope, economies of scale are still important (Gertler 1992). There appear to be contradictory spatial tendencies emerging out of post-Fordism, with globalisation of production continuing apace and the localization of production in some industries and in certain spatial contexts, resulting in the emergence of new Marshallian industrial agglomerations (Amin and Malmberg 1994). The localization of production may be the result of vertical disintegration and networking, which facilitates the emergence of some regions as self-contained economic units (Amin and Thrift 1999).

Large corporations are also increasingly adopting flexible approaches to growth and expansion. In the post-Fordist era, more flexible approaches are used in maintaining and expanding transnational operations so as to take advantage of factors such as currency, politics and access to markets. Strategies include: having manufacturing alliances with other multinationals and retreating to a network company linked to manufacturers, suppliers, sub-contractors and distributors. Risk is thus countered by vertical disintegration (Berry 1989; Dicken 1992).

In addition, through changes in the labour process and a transformation of industrial organisation by sub-contracting and vertical disintegration, new sectors of production, new ways to provide financial services, faster innovation and shifts in development patterns

have emerged. At one end of the business scale, flexible accumulation conducive to massive mergers and corporate diversification has taken place; at other end, there has been growth of small businesses (Harvey 1989).

However, it is unwise to generalise about changes across the whole of manufacturing activity. Gertler (1992), in a survey of work on flexibility, cautions that the change that has taken place has been highly uneven spatially, sectorally and in individual firms. The implementation of flexible specialisation is technically difficult and the outcome is not always predictable. Its implementation is highly dependent on the mode of regulation and the local social context. In particular, the role of public policy is important in providing an institutional framework to accommodate new production relations (Gertler 1992). Manufacturers in mature industrial regions have difficulty using advanced process technology. This is the case if the producer and user of this technology are spatially removed, which is prevalent in mature industrial regions (Gertler 1993).

Turning attention now to criticism of the regulationist approach, one problem is that the reasons for change from one regime of accumulation to another are poorly specified and vary from writer to writer. General changes in the market, changes in firms aggregate demand, and the desire to control workers and the forces of industrialization are attributed as the cause of a transformation to flexible accumulation. Dunford (1988) regards it as an adjustment to the instability and stagnation of markets. Gertler (1988) views the flexible approach as having already existed, but now technology tries to control the mind as well as the body of the worker. He considers it more realistic to present flexible technologies as the result of a long chain of innovations rather than a clean break. In relation to the transition from Fordism, Fagan and Le Heron (1999) consider there has been over generalisation based on changes in production; also the changes postulated are based on relatively few case studies. They also argue that even when Fordism was 'hegemonic', vast areas of Europe and North America did not experience Fordism.

Alternatively, the change to a flexible regime is viewed as a means to control workers. Pollert (1988) perceives the new regime as an ideology propagated by firm owners as a

desirable future state. The motive of the ideology is to undermine the power and rigidity of labour so firms can achieve greater levels of profitability. Harvey (1989) sees the transition to flexible accumulation as a response to crises in Fordism resulting in a devaluation of labour power through the implementation of flexible labour systems. Rather than anything essentially new, he views it as a new combination of old elements and as "the outcome of the search for financial solutions to crises tendencies in capitalism" (Harvey 1989, 194).

Changes occurring in the capitalist system are also interpreted as the result of the dynamic process of industrialisation and accumulation. With the emphasis on understanding how industry develops in and through places, Walker (1989) puts forward the concept of geographical industrialisation. Central to this concept is how industrial growth and capital accumulation result in industries being important in certain parts of the globe. Walker argues that capital uses and accumulation produces places as they do commodities and profits. He theorises industrial location as a process of industrial development in a spatial context. Capitalism is understood as being in an inconstant state in which disequilibrium forces propel industrial growth through accumulation, competition and technological change. Fast growing industries generate large surpluses and accumulate rapidly which allows them to attract their own factors of production. Place-based practices shape technological changes that produce location patterns that are inconstant. Therefore, leading centres change and backward areas (periphery) are not condemned to this situation forever. Industrial development and their technologies are deeply bound, therefore, to the places in which they develop (Storper and Walker 1989).

Overall, the regulation approach is a positive theoretical development and it offers a way of integrating production, consumption, reproduction and the state, all in an historical context. The theory also incorporates the geographical unevenness of development and the economic, social and political influences at different spatial scales. On the other hand, this approach is weak on explaining particular regimes and Smith (1989) considers that it overemphasises the role of the nation state and understates the importance of the internationalisation of the economy.

Recent developments in the food industry include some features of a flexible regime of accumulation. The changes include: the adoption of flexible technology such as programmable logic controllers, organisation techniques such as JIT, total quality management (TQM), flexible labour practices linked to sub-contracting, and increasing use of part-time and temporary staff. However, Francis (1993) notes that flexible practices have been in use in meat packing since the turn of the century and attributing changes to a post-Fordism regime distorts our understanding of restructuring. On the other hand, the growth of small scale firms is associated with the flexible regime. Milne and Tufts (1993), however, are not optimistic about the survival of the small scale breweries that have recently proliferated in Canada. The larger brewers have restructured, and with their new found flexibility and efficiency are in a position to take over profitable niche markets created by microbreweries. The flow process characteristic of some sectors of the food industry may also detract from the applicability of flexible regime of accumulation. Gibbs and Jenkins (1991), in an analysis of the petrochemicals industry (an industry that like some of the food industry uses flow processes), do not see flexible specialisation as applicable. They argue flow processes are very different from component assembly and mass production using dedicated equipment in large plants dominates. However, even within flow process type production in the food industry, production of a homogeneous product has given way to individual specifications and formulas to cater for specific market demands.

In Friedland's (1997) view Fordism dominates food, but there has been a growth in differentiated sub-systems, for example particular foods which cater for the economically privileged. Mass production and consumption prevails for most of our food such as wheat corn, soybeans, pork, chicken, lettuce, but along side this is the emergence of stone ground wheat, free range chickens and unpasteurised milk (Friedland 1997). Structurally, there are also contradictory trends, at one end of the scale there is a high degree of concentration, with much merger and acquisition activity (Wallace 1985; Marsden and Little 1990; Wallace 1992), while at the other end, there is growth in the number of medium and small scale processors (Thompson 1990; Milne and Tufts 1993).

Therefore, features of flexible specialisation may not be dominant in the food industry, but some of these trends are apparent.

#### *2.4.1 Food Regimes*

Within the regulationist school, a recent approach to the study of agro-food restructuring is that of 'food regimes'. The research on food regimes and the debate on the possible emergence of a third food regime, came to prominence as the agro-food sector was being integrated into supranational regulation under the Uruguay Round of the GATT Agreement. Originating in the work by Friedmann (1982, 1993), food regimes are described as "relatively stabilised formations that allow sustained international expansion of accumulation to occur" (Pritchard 1996, 858). Food regimes "are found in the characteristics of large scale food production and consumption and their relations to the state system" (McMichael 1992, 344). Food regimes emphasise the historical and international context within which accumulation takes place in the agro-food system. Capital formation and accumulation are linked to regulatory modes, which can be applied at global or national scales. Three distinct periods of regulation or food regimes have been identified.

The first food regime was situated in the imperial political system that was hegemonic until the outbreak of World War II. It was based on European imports of temperate agricultural products from the 'settler states' and the emphasis was on the volume production of farm products. Food was imported to serve the mass markets emerging in the industrial centres in Europe, and industrial goods were exported to the colonies. As Europe industrialised and urbanised, agriculture became a residual part of the economy. With the increase in agricultural exports from the 'new world', tariff and non-tariff barriers increased and vertical trading blocks of imperial powers and their colonies emerged (Le Heron 1993).

The second food regime (1945-1973) was based on the emergence of nation states and the hegemony of the US. Le Heron refers to the "transition from imperial-nested order of the

first food regime to the second food regime set in a system of nation states” (Le Heron 1993, 74). The emphasis moved from volume production in the first regime to volume processing in the second regime. Friedmann and McMichael (1989) identified the industrialisation of agriculture and food and the formation of nation states as two appropriate formative processes in the second food regime. The US, through foreign food aid and subsidised exports, generated a dependence on aid and a decline in traditional food exports in the recipient countries. Later in this regime, integration of the US and European food systems was facilitated by the penetration of Europe by US TNCs. However, the hegemonic role of the US in the second food regime has been overstated according to Le Heron (1993). The second food regime was characterised by substantial government intervention in agriculture. Complex market policies were put in place to stabilise food markets and provide reasonable farm incomes. However, the market policies promoted the industrialisation of agriculture and continued increases in productivity.

Many now argue that the second food regime is “unhinged”, although there is still a reluctance to refer to the emergence of a new regime. During the 1980s, difficulties arose that are undermining the existing regime. In the developed world, these included government intervention, leading to institutionalised surpluses, unacceptable costs of intervention and the environmental consequences of industrialised agriculture. There has been a shift from volume processing to an emphasis on fresh and formulated foods for an increasingly differentiated market. In addition the hegemony of the US has been altered as trading blocks under NAFTA, the EU and other areas have become more prominent. Key features of a new regime are evident especially as concentration of capital in retailing has emerged as a prominent force in the agro-food system and restructuring. There has also been a profound move to international regulation through GATT/WTO. McMichael (1994) views the reorganisation as stemming from the breakdown of managed trade and the shift of the initiative from states to TNCs. Thus, food regimes can be useful as a broad conceptualisation of the dynamics of food at a global level.

The development of the food regimes concept is important theoretically as it helps to place development of food in an historical context and links international relations of production,

forms of regulation and accumulation. However, while there has been a good deal of theorising about food regimes, there has been little empirical work to support this theorising. The concept also has parallels in regulation theory (see Fig. 2.1); Fordism and the second food regime coincide, as does post-Fordism and the third food regime. Changes in the market are central to both concepts, as is the increasing global dimension to the economy through globalisation of economic activity and global regulation. However, Marsden (1997) stresses the need to focus more specifically through the concept of food networks. Through this concept, a better understanding of the social and political development of regions and states is possible. The concept of food networks permits empirical global-local links to be explored or:

*“the two extremes, local and global are much less interesting than the intermediary arrangements that we are calling networks” (Latour 1993, 122)*

This most recent theoretical introduction of ‘food networks’ into the literature has yet to be fully developed and is not considered further in this work.

## **2.5 From The Theoretical To The Empirical**

In the discussion of the regulation approach, the focus has been on theoretical development. The wide-ranging nature of concepts such as Regimes of Accumulation and the Mode of Social Regulation are evident. However, to operationalise regulation empirically, many (for example, Bowler 1994 and Pritchard 1996) turn to “real” regulation. Real regulation is different (though closely related) to the Mode of Social regulation and more closely bound to the state as regulator. Defined by Clark (1992, 616) as “ the administrative manner, style and logic by which the state regulates society in general, and the economic landscape in particular”, “real” regulation is a move away from the theory of the state to the nature of administration. Arising from this interpretation of the regulation approach, there has been a renewed vigour in empirical research at national, regional and

local scales. In this section, the nature of this trend is critically explored and its relationship with the regulationist approach is discussed.

Towards the end of the 1980s a new orthodoxy emerged in which the success and growth of industrial regions was regarded essentially as the result of local economic development. This arose from the interpretation of the success of industrial districts as part of the general tendency of the change from Fordism to flexible specialisation, whose spatial form was the district as against the branch circuit (Lipietz 1993). Regulationists argue that the changes to flexible accumulation have resulted in the world economy increasingly becoming a patchwork of dense industrial agglomerations (Scott 1992). Specialised industrialised agglomerations, consisting of dense networks of functionally interrelated firms (i.e. industrial districts) are replacing the multi-divisional firm.

This trend also reflects a desire to move on from the rigidities of the Marxist approach (Morris 1988), with its concentration on theoretical abstraction and global processes. It also represents a shift in the focus of analysis from the general back to the local or regional. It is exemplified by studies such as by Glasmeier (1991) and Saxenian (1991) that show how local history, culture, institutions and industrial structure interact with evolving global competitive forces to produce local development trajectories. While there has been an increase in local studies, Gertler (1992) asserts that comparative analysis is relatively neglected and more research is required on the unevenness of changes taking place and why some districts are not successful.

Smith (1989) considers this shift to empirical analysis and the study of the unique and particular as desirable and necessary, but cautions on the danger of losing sight of theory. Detailed locality studies tend to put forward a place-specific matrix of social, economic, cultural and political change in place of theory. He recommends a theoretically founded new regional geography as a focus for research. Some also disagree with the contention that the industrial district or region is the relevant spatial form.

Looking now at the political context, regulationist theorists believe the primary forces of change occur within national economies. Within a state, the model of development chosen helps determine the type of industrial network and the reservoir of employment and, therefore, the direction of development of an area. The state influences economic processes and patterns through its legislative framework and national agreements (Leborgne and Lipietz 1992). Berry (1989) also believes that nation states are primary agents shaping economic geography. However, he sees the role of the nation state as more of a cultural unit in which socialisation, values, customs and ideas are generated and transmitted. The priority is, therefore, to develop a comparative understanding of the culture-specific behaviour of economic actors, of social and political organisations, and how these translate into culture-specific economic geographies. To analyse these, culture-specific location theories are required (Berry 1989).

Within the regulationist framework, the state is an object as well as the agent of regulation (Le Heron 1993). The transition from Fordism to post-Fordism has therefore also reoriented the state; there has been a shift from the Keynesian welfare state to Schumpeterian workfare state and arguably, there has also been a hollowing out of the national state (Jessop 1994). The very existence of the state presents opportunities for TNCs to take advantage of differences in national regulation. For Dicken (1999), there are two important aspects of state regulation for TNC's, these are (1) access to markets/resources, and (2) the rules of operations for firms. Firms can, however, get around specific national regulation by engaging in strategic alliances or joint ventures. For example, MD Foods (a Danish dairy company) had difficulties in retaining its US cheese market after the GATT agreement in the early 1990s. The limits imposed on export refunds on cheese would have made their cheese uncompetitive on the US market. The company engaged in a joint venture with a US company to manufacture the cheese in the US, thereby getting around the regulatory difficulties.

In many countries, there has been a decline in the role played by directly elected government institutions (i.e. government) and an increase in 'governance' (i.e. the exercise of authority by non-governmental institutions). There is, therefore, an increasingly diverse

range of institutions of different types, which need to be included in an understanding of regulation and their contribution to the MSR. This development suits the regulation approach, with its inclusive regulation concept, even though it makes the study of regulation more complex (Painter and Goodwin 1995).

The emergence of trading blocks or supranational blocs, such as the European Union (EU), is also an increasingly important development in the world's economy (Dicken 1992). From the regulationist perspective, these represent another 'level' of regulation. While there is great pressure for harmonisation within the blocs, particularly in the EU, changes are likely to be slow and competition within the blocs may intensify (Gertler and Schoenberger 1992). It seems, therefore, that the state will remain the most important mode of regulation. However, in relation to food in Europe, the supranational level is most important and through the CAP and other policies; the regulatory context is set in relation to market organisation and economic conditions for movement of imports and exports. Within the local state, there is also room for local modes of social regulation (LMSR). Relevant mechanisms might include local labour agreements, local institutions and particular links to international or global enterprises. The regulationist approach, therefore, permits influences at different spatial scales to be incorporated into a comprehensive conceptual framework. This is very relevant as the state intervenes in the food supply system (which impacts on the food processing and the food manufacturing industry) to regulate supply, and steer production through state planning arrangements and quasi-government agencies (Le Heron 1988).

## **2.6 Conclusion**

Explanatory frameworks in industrial and economic geography have developed to incorporate the complexity of contemporary capitalism. Neo-classical approaches offer relevant insights into industrial location and economic change at a fundamental level, but they fail to take account of the wider social, economic and political context. The structuralist perspective broadened the discussion to include history as well as social, economic and political dimensions. However, there was too much theoretical

generalisation and concepts were applied globally without sufficient emphasis given to local influences. The regulation approach and the debate on globalisation has re-emphasised the importance of state-level arrangements and local responses, although it has retained some of the generalising problems of structuralist approaches. More recent empirically orientated work arising out of literature related to industrial districts and institutional thickness has refocused on specific processes and specific outcomes at local or national level. An over-reliance on place specific understanding of change could be to the detriment of theory. However, comparative studies can make an important contribution; they can highlight the importance of place specific factors whilst at the same time embedding such change in a theoretical framework.

Of the available theoretical approaches, regulation theory has been adopted in this study as the most appropriate way of studying restructuring in the food industry. In particular, the Mode of Social Regulation and its five elements as outlined by (Marden 1992) are used as the key conceptual framework (see p.18 and Chapter 4.2). The focus will be on the Mode of Social Regulation rather than Real Regulation- a distinction adopted in many regulationist studies. However, it is recognised that Real Regulation and the Mode of Social Regulation are closely interrelated; Real Regulation is part of the Mode of Social Regulation and the Mode of Social Regulation is part of Real Regulation.

The concept of the Mode of Social Regulation permits the inclusion of the influence of local institutions, the state (or states), and the EU. The comprehensiveness of the approach allows local plant or industrial district level changes to be placed in the context of broad based global processes. For example, spatial changes and restructuring in the industry can be examined in the light of the perceived transition from Fordism to flexible specialisation, the globalisation debate and the possible transition to a third food regime. The concept of food networks, which has recently developed in the literature, does provide an important concept, which can help to bridge the global-local gap. However, the concept was not well developed at the time of undertaking this study and the Mode of Social Regulation was considered a more appropriate and relevant focus for this study. Identifying the form and the consequences of the Mode of Social Regulation is therefore the central focus of this

study. This concept is applied to the dairy processing industry in Ireland and Denmark and the next chapter sets the context of the analysis by looking at changes in the food industry through relevant empirical work in geography and related disciplines.

Nevertheless, a word of caution is repeated about avoiding the pitfalls of generalisation. Most of the recent development of theory has been based on evidence from the high technology and automobile sectors. These sectors may not necessarily reflect developments elsewhere in the economy, such as the food industry and the following analysis continues to examine the relevance of regulation theory for understanding change in the dairy processing sector.

## Chapter 3

### The Evolving Food Processing and Manufacturing Industry

#### 3.1 Introduction

Empirical research undertaken on the food processing and manufacturing industry is reviewed in this chapter. Geographical research of this industry has not been extensive; therefore, relevant literature from related disciplines in the social and economic sciences is also included. Also, because of the high degree of concentration in the food industry, large corporations are a dominant force and, therefore, are the primary focus of research at the expense of small and medium enterprises (SMEs). Initially, the evolution of large food corporations and the dualistic composition of the industry is briefly outlined. Then, the characteristics of, and recent developments in, the industry are discussed under the following headings: consumer and demand changes, technological developments, structural change, state intervention, labour, and relations within the food supply system. It is also necessary to discuss developments upstream and downstream of the food manufacturing industry, because of the integrated and interdependent nature of the food supply system. Developments are interpreted using the theoretical frameworks discussed in the previous chapter, with particular attention to the regulationist approach.

The food industry has evolved out of the traditional agricultural economy that was transformed into an agribusiness production system, or food supply system, of which the food industry is one part. Over time, the non-farm sectors of the food system have become highly industrialised and this can be understood as taking place through two processes: (1) appropriatism and (2) substitutionism. **Appropriatism** indicates the development of industrially-based labour processes that replace several processes once confined to the farm sector (e.g. production of inorganic fertilisers; the processing of milk into butter). As a result agriculture is increasingly integrated with chemical, pharmaceutical and financial sectors. **Substitutionism** is where, through use of new technologies, it is possible to replace agricultural products with manufactured products (e.g. artificial sweeteners for

sugar). As a result there is a tendency to shift food production from the farm to the factory (Le Heron 1993, 36; Bonanno, 1994, 254; Whatmore 1994, 50).

Wallace (1985), more descriptively, associates the growth of the agribusiness system in the West with the growth of large corporations involved in one or more stages of agribusiness. The origins of the large corporations were in the United States and to a lesser degree in the UK. The large food corporations in the US emerged from successive waves of merger activity. For example, the US food company Philip Morris has emerged from successive waves of acquisitions in recent times since it acquired General Foods in 1985, Kraft in 1988 and Jacobs Suchard in 1990 (Tansey and Worsley 1995). In the early part of this century, the industry consisted mostly of small and medium sized enterprises. The 1920s saw the first wave of merger activity as direct competitors combined with each other. The Great Depression slowed growth and it was not until after World War II that increased concentration recurred. The 1960s saw another wave of merger mania; in this period the large intersectoral food conglomerates came into being. In the 1980s, another wave of merger activity emerged, resulting in a large proportion of the assets of the food industry becoming concentrated in a few firms (Mueller 1982; Connor *et al* 1985). The rise of large food firms can be seen in the context of other changes occurring in society:

*“The growth of large cities, improved transportation, the availability in some countries of abundant supplies of cheap imported raw materials and economies of scale on food manufacturing, combined to produce the large food firm and later the giant multi-national.”* (Traill 1989a, 226).

In the course of this transformation, different sectors of the food system have dominated. Agriculture dominated until the late 19th century while food manufacturers prevailed until the 1960s. Since the 1970s, the power of retailers has grown to a position of dominance (Lang and Wiggins 1985) and the most recent development in the balance of power in the food chain has developed out of the growth of large multiple retailers (Verner Wheelock

and Frank 1989). This is particularly so in countries with high levels of retail concentration, such as the UK, where more costs are passed back to the manufacturer and profit levels have increased for the retailers (Wrigley 1992).

The food industry is characterised by a "high degree of diversity" (Bertele 1988, 209) in size, typology of production, backward and forward linkages, influence of public policies and ownership. However, as referred to in the previous chapter, the industry can be broadly considered as having two parts (originally outlined by Grieg 1971). One part is agriculturally orientated and the other is consumer orientated. While this division of the industry is useful for analytical and discussion purposes, the distinction between the two is not always clear. Some firms may not clearly fall into any one part, while others (particularly large firms) may be involved in both parts of the industry.

The agriculturally orientated part of the food industry produces standardised commodities in a state for further manufacture at minimum cost, often relying on by-products for profitability. This segment of the industry tends to sell its products to a few powerful buyers. Raw material supplies may vary seasonally in quality and quantity and are often produced locally. Traditionally, these processors were rurally located, but developments in processing and in transportation have diluted this need and processing now tends to take place at large centralised locations. Examples of this segment of the industry include primary dairy processing, meat slaughtering plants, grain milling operations and sugar beet processors. The consumer-orientated part of the industry has a high degree of product differentiation, less emphasis on price competition and greater investment in product development. This part of the industry manufactures more highly processed convenience foods and typically uses outputs from agricultural industries for inputs. These types of firms are directed towards producing identifiable, differentiated, often packaged, advertised, promoted goods, (Martinson and Campbell 1980; Burns 1983; Traill 1989a). Examples of this segment of the industry includes confectionery manufacturers, producers of convenience foods, branded cheese and yoghurt manufacturers, breakfast cereal manufacturers and soft drink producers.

This general classification of the food manufacturing industry also has links to ownership characteristics and market orientation. Diry (1979) noted that in the French agri-food system, basic processing, which ties up large amounts of fixed capital with little value added, was concentrated in the hands of co-operatives, whereas the private sector dominates parts of food processing with high value added and high profit levels. Byman (1990) pointed out that primary processors are more regional and national in orientation, in contrast to final food processors that are more global in scope. Thus, primary processors tend to be co-operatively owned and supply regional and national markets, while secondary processors tend to be privately owned and are global in scale.

### **3.2 Changes in Demand and Consumption**

The food manufacturing and processing industries have been influenced by changing trends in consumer demand, as reflected in the consumption of food. While the quantitative demand for food in the western developed economies is almost at saturation point, significant changes in the type of food and means of consumption are taking place. The constraint of static or declining demand for food drives food manufacturers to constantly develop products that appeal to changing consumer preferences and to add value and convenience to existing products (Howe 1983). In addition, intensive competition between retail companies acts as an incentive to respond to demands and preferences of customers. The result is a volatile food market (Verner Wheelock and Frank 1989). In this section, some significant consumer trends are explored, including the convergence of demand patterns, the concern for fresh and healthy food products, increasing segmentation of the market, greater emphasis on convenience foods and the decline in demand for traditional animal products.

Food demand and consumption have become more uniform nationally and internationally as lifestyles homogenise and food firms internationalise (Bertele 1988). Food consumption patterns in North America anticipate patterns in Western Europe and as indicators such as household income, relative prices, demographic changes and nutrition concerns converge, so also food consumption patterns are expected to converge (Connor 1994). However, this

trend is qualified somewhat by Connor and Schiek (1997), who maintain that convergence is relevant only in some products where there is global marketing (for example soft drinks such as Coca Cola and Pepsi Cola). Still further doubt is thrown on convergence in food consumption by Traill (1997a). In a study of the globalisation of food, he finds limited evidence of such convergence and identifies four distinctive cultural groups in Europe as regards food consumption: Anglo-American, Nordic, Germanic and Latin European.

As living standards improve, the demand for staple food products declines and demand for animal products increases. For example, in the UK, consumption of potatoes and bread has declined, while consumption of fish and fruit and vegetables has increased (Table 3.1). There has been increased concern in recent years with non-economic aspects of food consumption in Europe, such as diet and health, food safety, the environment and animal welfare (Traill 1997b). For example, the outbreak of Bovine Spongiform Encephalopathy (BSE) in the UK in the mid-1990s led to a decline in beef consumption and an increase in the consumption of poultry meat (Table 3.2). Manufacturers appeal to consumers' concern

**Table 3.1 Average Household Food Consumption<sup>6</sup>, UK**

Food Items	1984	1989	1993	1994
Milk and Cream (equiv. Pints)	4.31	3.93	3.83	3.86
Cheese	3.84	4.07	3.85	3.75
Eggs (number)	3.21	2.29	1.92	1.86
Fish	4.89	5.2	5.1	5.13
Potatoes	39.82	35.59	30.88	28.65
Fresh Green Vegetables	10.83	10.23	8.46	8.63
Processed Vegetables	16.93	19.06	19.81	19.78
Fresh Fruit	18.99	21.45	21.75	22.75
Bread	30.75	29.43	26.7	26.72
Cakes and Biscuits	8.86	8.85	9.19	9.21
Flour and Cereal Products	14.60	15.05	15.64	15.02
Beverages	2.76	2.6	2.23	2.22

Source: National Food Survey, MAFF.

<sup>6</sup> Ounces per head per week unless otherwise stated

for diet and health through 'light' or low fat foods and functional foods (that is, foods with a beneficial health attribute).

In the production of foods, the health concerns of consumers have resulted in a greater emphasis on quality and more interest in organic foods (Rabobank 1999). Sales of organic foods in Europe have grown by over 70% from 1995 to 1999 and are expected to continue to grow. While organic food accounts for only 1.5% of the overall European market at present over the next 5 years a trebling of this market is expected (Department of Agriculture, Food and Rural Development 2000). This changing emphasis is facilitated by a decreasing concern for price in food products as the incomes of more affluent consumers rise (Traill and Grunert 1997).

**Table 3.2 Meat Consumption Of Selected EU Countries (Kg/person/year)**

	Austria	Denmark	France	Germany	Netherlands	Ireland	Italy	UK
<b>Beef /Veal</b>								
1997	20	20	27	15	18	17	24	17
1987	n/a	15	32	24	20	21	27	23
<b>Pig Meat</b>								
1997	55	57	35	54	41	38	34	23
1987	n/a	66	36	62	44	34	29	25
<b>Poultry Meat</b>								
1997	17	18	24	15	21	32	19	27
1987	n/a	12	20	10	15	20	19	18

Source: Eurostat (1998)

The demand for products perceived as fresh, with little processing, and for products that contain a high degree of incorporated services (or convenience foods) is also increasing. To satisfy the need for perceived fresh and unprocessed foods, more sophisticated technologies are required and used. The result is that the boundaries between fresh and industrially processed products are increasingly blurred (Bertele 1988). Health aspects of food are increasingly important and concern with nutrition and food safety are exhibited by shifts in consumption to white meat, low fat foods, and "natural" foods with "less additives" (Bertele 1988). The trends are reinforced by governments, media and

commercial interests and are, therefore, likely to continue. Thus, the demand for animal products is likely to fall and the demand for fibre will increase (Verner Wheelock and Frank 1989).

There is also a trend towards polarisation of the food market, between modestly priced products of a standard quality and higher priced products of a higher quality (Bertele 1988). For some consumers, price is less important; they are prepared to pay higher prices for higher quality food. However, consumer preference varies; therefore, segmentation and volatility are likely to continue in food markets (Verner Wheelock and Frank 1989). However, the bipolarisation of the food market induces a similar trend in food processing. Handicraft sectors are likely to survive and develop, as well as firms, which manufacture or process standardised products on a large scale. Lifestyle and technology changes are also changing the nature of food consumption. Changes in the labour market (especially the higher rate of female participation) result in increased importance in meals and snacks away from home, in takeaway foods and in ready made foods (Bertele 1988). For example, in the UK, only one in 12 meals were eaten outside the home in 1980; this rose to one in seven in 1990 but remains some way behind the USA, where one in 2.5 meals are eaten outside the home (Tansey and Worsley 1995).

As a result, the foodservice sector in the food industry is also increasing in importance as an outlet for processors. The foodservice sector accounts for over 25% of the share of world-wide food expenditure (Rabobank 1999). While much of the foodservice sector is dominated by small scale restaurants, cafes and bars, the fast food segment is dominated by large US-based companies, such as McDonalds and Burger King that have thousands of franchised outlets throughout the world. The widespread use of the microwave oven has also contributed to the deconstruction of the traditional family meal.

As a result of these changes, the demand for canned foods has declined, frozen foods have remained stable or increased, and demand for fresh and chilled foods has expanded (Wallace 1992). Also, the demand for traditional animal products such as liquid milk, butter, beef, bacon, and ham have declined. On the other hand, demand for more recently

developed dairy products, such as low fat milk, milk desserts, yoghurt, soft natural cheeses and cottage cheese, has increased. In meats, the demand for pork is growing and for poultry is growing rapidly (Table 3.2). Also, the demand for high fibre bread, vegetables, fruits and fish has increased, as has the demand for convenience foods of all types. Overall, the growth in demand for animal products has reached a maximum and maybe in decline. The fact that demand for milk, bacon, ham and eggs have fallen, despite a fall in prices of these products, indicate how important consumer attitudes have become (Verner Wheelock and Frank 1989). Retail chains have consolidated these trends, through the allocation of shelf space according to the changing trends in demand (Wallace 1992). For this study, the most important point to emerge is the increasing segmentation and fragmentation of demand that presents pressures and opportunities for food companies to respond.

A major influence on changes in the food chain has been the changing place of food in consumer lifestyle. Changes in work and attitudes have increased the emphasis on natural food, quality food and convenience foods. There has also been a fragmentation of demand thus creating many niche and specialist markets (Shaw *et al* 1989). These trends drive food firms to focus on innovation and product development to meet the changing needs of the market. In the next section, the role of technology in the evolving food industry is discussed.

### **3.3 Technological Changes**

Technology applied to food manufacturing impacts on the structure of the industry and society through cost changes, changing labour requirements, changing locational requirements, changing capital investment and economies of scale. The changing and ambiguous requirements of the market for natural healthy, nutritional and convenient products drive a search for more sophisticated technologies (Bertele 1988). In this section, technological and process developments, which impact on the food industry are reviewed. In particular the impact of process automation, biotechnology and irradiation and management information technologies are reviewed.

The food industry is often considered to be technologically mature with little innovation and low levels of R and D investment. Much of the technology has been in use for a long time, such as canning, drying, curing, milling and baking. However, the technology is not static; new techniques and technologies have been emerging. Some of the technologies have been transferred from the pharmaceutical industry. The more recent developments include biotechnology, irradiation, new separation techniques (extraction, refining, fractionation), filtration and demineralisation. Other developments include: an increasing variety of food ingredients (including ingredients tailor made for specific consumer products), new process technologies (fluidised beds and UHT process), and the introduction of microprocessor control to processes. There have also been improvements in packaging technology, such as boil-in-the-bag instant reconstitution, polypot and combining technology (Blanchfield 1983).

Many developments in process technology in the industry have involved the conversion from batch to continuous production processes. More recently, the introduction of microprocessor control to food processes has had a significant impact on the industry. Existing technologies are updated by the application of computer control technology. As in many other industries, the application of these new technologies in food manufacturing has resulted in job losses (Lang and Wiggins 1985). The result of these changes has been more efficient production and improved quality control (Blanchfield 1983). For example, in the French and German dairy industries, employment fell by 25% and 20% respectively between 1980 and 1990, while gross value added per employee increased by 300% and 240% respectively (O'Connell *et al* 1997).

The most significant recent technological development in the food industry has been biotechnology, which through a combination of controlled biological processes and technology allows the creation of engineered or genetically modified (GM) foods. It is too early to evaluate the likely impact of biotechnology on the industry. However, given the high costs of R and D, it is likely to favour larger firms (Bertele 1988). This development may have profound effects on the structure of industry in the future and may involve vertical integration or disintegration if a totally industrialised food industry emerges

(Tovey 1991). Most of the world's top 50 food firms are involved to some extent in biotechnology, with Japanese firms playing a dominant role (Wilkinson 1989). Control over innovation process in biotechnology is held by MNEs and therefore any innovation ensuing will be directed at enhancing the competitiveness of MNEs. However, Goodman and Wilkinson (1990) note that chemical and pharmaceutical companies dominate biotechnology research and, in a restructured food industry, these industries could control the food sector also.

Sorj and Wilkinson (1994) forecast that the role of biotechnology will not be the substitution of existing products, but rather the enhancement of the perceived quality and naturalness of the food. Biotechnology is considered by Wilkinson (1987) as part of the response to the demands for nutritional food products. It is predicted that biotechnology will accelerate the move to automated production and break down the integrated chain of production. Uncertainty remains as to consumers' willingness to accept GM ingredients (Sorj and Wilkinson 1994), particularly in Europe (Rabobank 1999). The development of GM foods based on biotechnology has received a setback in Europe with the adoption of strict labelling requirements by the EU and with many retailers insisting on not stocking foods with GM ingredients. The concern expressed by the European consumer and the EU is much more cautious than that encountered in the US.

Another major technological development in the food industry is irradiation, which, like heating or freezing, kills bacteria and insects. This technique has not come into widespread use because of consumer resistance and fear. Some firms are afraid to take it up as they fear association with irradiation could damage their market image. It is also a process that requires large scale investment, so this may deter its development. The Netherlands and France are most involved in its development. In the future, restrictions on chemical food preservatives may boost and make it a more acceptable technology (van Dijk *et al* 1989).

The food industry is increasingly demand-orientated with closer identification of food with nutrition and health. The capacity to respond to changing demands is an important

competitive advantage in a slow growing demand industry. New technological developments such as biotechnology are an important part of the capacity to respond to changing demands. It is likely, however, that biotechnology will result in a restructuring of the food system, breaking down historical barriers of specialisation (Goodman and Wilkinson 1990). The new technologies are likely to lead to increasing self-sufficiency for food products in markets such as the EU. There are, therefore, major market repercussions for food exporters, such as the US, that supply the EU (Byman 1990).

New information-based, management-based technologies have also influenced the food industry. These technologies allow management to respond to changes faster and be more flexible through better information (Shaw *et al* 1989). These developments have also had an impact on food distribution. Fully integrated management information systems have been implemented, including bar code read outs and electronic fund transfer at the point of sale. These developments allow better information on consumer buying patterns, individual customer and shopping habits and improved accounting and security. Orders and information can be relayed to manufacturers facilitating closer relationship between manufacturer and food chains (Shaw *et al* 1989).

While the food industry still utilises mature technologies, new developments are having a significant impact. Automated process control and management information technology are affecting the industry. Production efficiency and quality control has improved, while there has been a loss of jobs. Biotechnology has a potential to result in major changes, but it is too early to assess such changes. For the present study, the increasing variety and complexity of ingredients used in food manufacture is an important development. The dairy processing industry has emerged as a major supplier of ingredients resulting in closer linkages with global consumer orientated food companies.

### **3.4 Structural Changes**

In this section, the changing structure and locational impact of the food industry is examined. Initially, the development of large food firms is explored. Next, the changing

role of co-operatives and SMEs in the food industry is examined. The trends towards increased concentration, diversification, internationalisation, economies of scale, locational trends and problems of entry are then assessed under separate headings.

The structure of the world food manufacturing industry is dominated by large firms, with concentrated geographic origins in the US, UK, and Japan. Of the 30 largest food, drink and tobacco companies, 15 are American, five are British, two are French and one Italian (Tracy 1993). More recently, of the ten largest food and drink companies, six are American, the remaining four are European-based French, British, Swiss and Dutch (Table 3.3). There are also a number of small countries that serve as important bases for large firms, for example; the Swiss based Nestlé Corporation and the Dutch based Anglo-Dutch Unilever. The countries whose large firms dominate food manufacturing are characterised by high levels of consumption of industrial processed foods. This pattern of development came about because of early development of industrialised processed foods in the US and UK which were subsequently introduced to other countries.

**Table 3.3 Top<sup>7</sup> 10 Food Manufacturers Worldwide, by Food And Drink Sales 1998**

Company	Country of Origin	Sales 1998, US\$ Billion	Est. Food and Drink as % Total Sales
Nestlé	Switzerland	49.7	95
Philip Morris	USA	74.4	44
Unilever	NL/UK	44.9	50
PepsiCo	USA	22.3	100
Diageo	UK	19.9	100
Coca Cola Co	USA	18.8	100
ConAgra	USA	23.8	56
Danone	France	14.4	85
Sara Lee Corp	USA	20.0	60
Mars	USA	15.0	80

Source: Rabobank (1999)

<sup>7</sup> In this table (3.3), the top 10 companies are ranked in order of sales in food and drink. Note that column 3 refers to total sales and column 4 refers to food and drink as % of total sales.

The dominance of these firms in the sector is also due to the structure of consumption (i.e. concentration of distribution apparatus) and the importation of agricultural commodities, which favour concentration. The relative lagging behind of other developed countries, such as Germany, France and Italy, was due to the reduced importance of these factors, which allowed foreign firms to seize segments of the market through subsidiaries or acquisition (Bertele 1988). In particular, France and Italy's slower acceptance of processed foods has influenced the development of their food industries (Burns 1983).

MNEs are important in industries in which intangible firm specific assets are important (Nicolas 1997), therefore they tend to dominate the highly branded products segment of the food industry (see also 3.4.1). The most common form of MNE in the food industry is multi-domestic rather than transnational (Watts 1995); truly transnational food enterprises are rare (Bonanno 1994). However, Nestlé is a classic example of such a transnational company; only 2% of its turnover is realised in its home country, Switzerland; it has 495 manufacturing plants located in 79 countries (Gillett 1998). Three stages in the development of TNCs can be identified: (1) vertical integration, (2) conglomerate integration, and (3) global integration (Heffernan and Constance 1994). As a result of the emergence of many larger food companies, the nature of trade has changed. A higher share of trade is now internalised by TNCs through intra-industry transactions between globally integrated firms. There has been a shift from 'shallow' trade-based linkages, to deep international production based linkages (Watts and Goodman 1997).

Structurally, the industry is characterised by increasing concentration and diversification from mono to multi sectoral activities. This trend began in the US, followed by the UK, and then spread to other countries. It is exemplified by continuing acquisition activity by Nestlé, Beatrice, RJ Reynolds, Phillip Morris, Kohlberg Kavis and Roberts. The industry has also experienced considerable restructuring in UK, France and Italy. For example, between 1985 and 1995, there were 1,192 restructuring deals recorded in the food sector worldwide, 668 of these occurred in the EU, compared to 253 in the US and 69 in Eastern Europe (Tonzanli 1997). Following acquisition, there is often disposal, refocusing and financial restructuring (Bertele 1988). The strategy of Unilever provides an example of

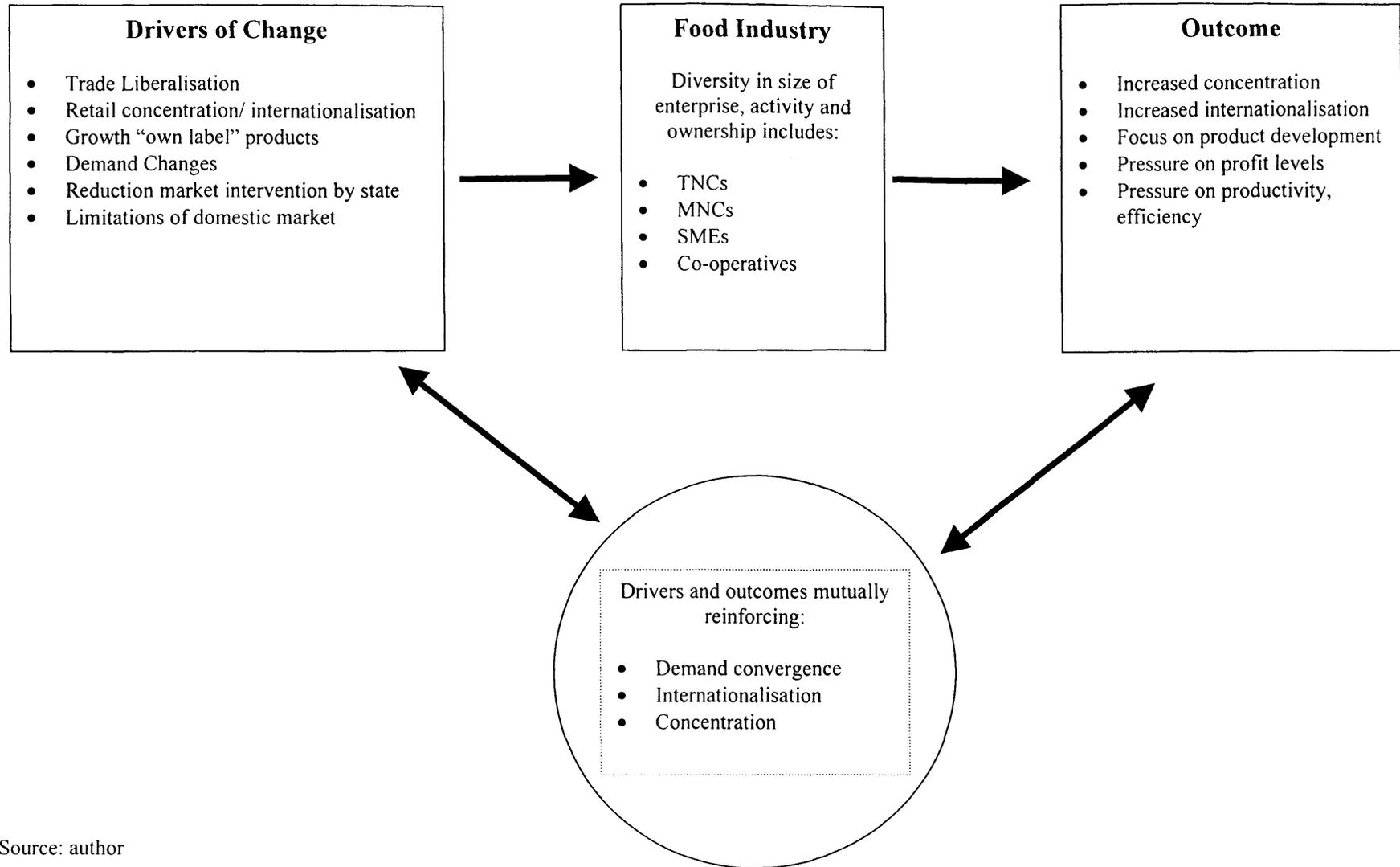
the direction taken by large food companies. Unilever is concentrating on high quality brands in a world market context, eliminating non-core activities and the development of new products from a strengthened research base (Wilkinson 1989).

Structural change (Fig. 3.1) is driven by changes in food consumption, the trend towards overproduction of food products, changes in public policies, changing relationships within the food supply system, changing technology and the internationalisation of the food industry (Bertele 1988). In a study of the European dairy industry, Bijman (1998) identified increasingly demanding consumers, retail concentration and the consequent increase in market power and liberalisation of trade and CAP reform increasing competitiveness as the main drivers of restructuring. The emergence of continental trading blocks is also an important driving force of change (Wallace 1992). However, the changes are also due to general factors regarding the evolution of firms, financial infrastructure and the general economic system, which are not specific to the food supply system (Bertele 1988).

Structural change in the food industry is tending towards international structural convergence. A six-country comparison of food manufacturing in United States, Canada, West Germany, United Kingdom, France and the Netherlands supported this trend (Connor *et al* 1985). The food industry in developed countries is converging in its degree of concentration, optimal plant scale, and advertising intensity. Among the reasons put forward for this convergence are: the worldwide availability of food processing technologies, increasing international trade, the homogenisation of food tastes (through travel, movies, magazines and cultural contacts), growth of supermarket shopping and prevalence of kitchen technology (Connor *et al* 1985).

Recently, there has been much debate on globalisation in the food industry. Traill (1997a) argues that while there are large food companies, which are dominant in certain sectors, and there are globally organised networks for specific commodities, the food industry cannot be described as global. However there are tendencies toward globalisation; in the US food industry the amount of imports and exports of processed foods are increasing

**Fig 3.1. Food Industry Dynamics**



Source: author

faster than purely domestic sales. Similar trends of the greater importance of the growth of foreign production over the growth in foreign trade was found in Europe (Traill and Grunert 1997). This is facilitated by advances in communication technology, transport technology, increased demand for foreign food, convergence of taste in some food products, and presence of profitable market opportunities for food firms (Connor and Schiek 1997). Friedland (1997) found evidence of an integrated network of agri-food chains that deliver fresh fruit and vegetables from all over the world to economically privileged strata. There are definite trends toward globalisation particularly in those sectors dominated by MNEs (Nicolas 1997); however within sectors there are firms with a variety of strategic and spatial orientations. For example, in chocolate production alongside Nestlé (an MNE which dominates chocolate production in Europe) there are a multitude of small and medium producers supplying more local or specialist markets.

Turning next to producer co-operatives, they comprise an important part of the food processing industry. In many countries they are the major force in primary food processing. Despite increasing concentration, co-operatives have persisted and remain important. In 1983, in the US, they accounted for 30% of farm products, and for 70% of meat freezing in New Zealand (Le Heron 1993). However, Wilkinson (1989) sees the specialisation in primary processing as a potential problem for co-operatives. The resultant identification of co-operatives, with one or a small number of products becoming increasingly interchangeable and subject to substitution under the impact of biotechnology, leaves them vulnerable. However, Pritchard (1996), in a study of the Australian dairy sector, found co-operatives very resilient and able to play a leading role in restructuring, largely excluding TNC capital from the industry.

Bertele (1988) argues that structural changes that result in high firm mortality and concentration has occurred mostly among primary processors removed from the final customer. The co-operative sector was particularly affected. Many co-operatives fall into this category; they tend to be dispersed, fragile in organisation, dependent on public support and constrained in their purchasing policy (Bertele 1988). Concentration is evident; for example, the dairy industry in Denmark has become highly concentrated with

fewer companies and fewer and larger plants (Jelsoe 1989). The same is true of the dairy industry of New Zealand; the industry, which is dominated by co-operatives, has moved from a series of small specialist producers to production of a range of products from large integrated plants. Diminished returns have driven the trend towards concentration, rationalisation and economies of scale. However, the changes have allowed the industry to be able to switch production to meet market demands (Robinson 1988). As a result of concentration, many of the remaining dairy companies and co-operatives have shifted from supplying commodity markets to supplying specialist consumer markets. This is an example of a shift to a more flexible form of production at a national level. Given the general inflexibility of food processes across products, this may be a form of flexible specialisation adapted to the characteristics of the dairy industry.

However, the dairy industry does not only consist of large companies and co-operatives. The industry is diverse and complex, also consisting of a large number of small and medium-sized companies (SME) with complex relationships within the food system (Lang and Wiggins 1985). As with other aspects of the food industry, the dairy sector does vary between countries. In 1983, in Spain, France and Germany, 90% of all agro-food firms had less than 20 employees and these firms accounted for over 30% of all employment in the sector. On the other hand, in the UK and Denmark, small-sized firms accounted for only 6% and 4% respectively of total employment but 66% and 51% of firms in the agro-food sector (Traill 1989b).

Small and medium-sized companies (SME) are particularly important in supplying regional and local markets (Burns 1983). However, they are vulnerable to take-over, as existing domestic or foreign firms try to gain market share. The constraint of static or declining domestic demand drives many food firms to develop foreign markets through acquisition and mergers (Wallace 1992). The fragmentation of demand assists small firms as they strive to fill niche and specialist markets. But restructured large firms are also adjusting to new niche markets and, as in the case of the Canadian brewing industry, may be able to take over profitable niche markets created by small firms (Milne and Tufts 1993).

A recent structural phenomena of the European food industry has been the growth of small food firms producing quality products. These companies are often very innovative, responsive to niche markets and linked to large food chains. Larger firms often appropriate these new markets but small firms can play a pioneering role in their emergence. Innovation, therefore, rather than employment may be the strategic importance of the small food firm. Small and medium sized food firms also serve as a counter to an oligopolistic structure that may, having adjusted to new markets, tend to slow innovation to recoup research and development and marketing costs (Wilkinson 1989). The growth in the number of small firms was also evident in a study of agri-processing firms in Alberta, Canada (Enright 1994). The number of small firms grew, especially those engaged in specialist food production and located in metropolitan areas.

Many of these small food companies also serve an economic development role in rural areas. They are often linked to local agriculture for raw material supplies, utilising and adding value to local produce. The rural location is often important because of suitable microclimate for the particular raw material, passing trade and rustic regional appeal. Small firms face the disadvantages of scale in research and development and technological development. According to Thompson (1990), small scale farm-based proprietors may lack the variety of skills and experience required. Some prefer not to supply food chains as they fear commercial vulnerability; those that prefer to supply food chains tend to have to have difficulties in making the transition from local and regional to large scale markets. This transition commonly involves dealing with large food retailing chains. This places new demands on volumes, quality, promotion, market information, and risk capital. Often these small firms are single product and seasonally based; therefore, they do not have the resources to meet these new demands. However, the central distribution system of multiple retailers can assist small firms in the distribution of their products.

While the EU has various schemes to assist SMEs (e.g. FLAIR, ECLAIR), increasing concentration threatens the future of many small firms. In the EU, the Single European Act gave an impetus to internationalisation of the food industry in Europe and small food manufacturers, especially in southern Europe, are ill-equipped to face this challenge

(Syrett and Cumbers 1996). But small firms are valuable to European society in terms of the creation of rural employment and wealth, maintaining the regional diversity of food, innovation in the food industry and employment for part-time farmers (Traill 1989b). Collaborative support systems, such as produce or producer based local organisations are useful in dealing with the difficulties experienced by SMEs (Thompson 1990). Next, the issues of concentration, diversification, internationalisation, economies of scale and the problems of entry into the food industry are examined in more detail.

### 3.4.1 Concentration

Food manufacturing is a very concentrated industry dominated by large diversified companies. There is much merger and acquisition activity as firms continue to become larger and fewer (Martinson and Campbell 1980; Wallace 1985). Caution is required, however, in not overstating this trend, as is evident from the empirical work below. In the US, for instance, a mere 100 corporations control the greater part of all assets and value added in food manufacturing. This share has grown continuously and substantially over the last three decades. These corporations have large financial resources and have strong market positions (Connor *et al* 1985). Concentration levels vary between food products. In the UK, sugar, condensed milk, ice cream, crisps and cereal base product industries are most concentrated, while meat, poultry products, and some fruit and vegetable industries are not so concentrated (Bowers 1985). In the US, sugar, cereal based products, dairy, chocolate, coffee and spirits exhibit high degrees of concentration (Martinson and Campbell 1980). The pet food, cereals, ice cream and chocolate sectors in the European food industry are highly concentrated while cheese for example has very low levels of concentration (see Table 3.4).

**Table 3.4 European Food Market Concentration 1993**

Market	Top Supplier	Top 3 Suppliers
Pet Food	55	80
Breakfast Cereals	53	70
Ice Cream	45	65
Snacks	25	--
Cooking Sauces	23	48
Pasta	23	-
Chocolate	22	61
Coffee	22	40
Biscuits	19	38
Soft Drink	18	31
Sugar	14	37
Pre-Packed Meals	13	31
Cheese	4	10

Source: Rabobank (1995)

As well as variation in the levels of concentration between products, concentration also varies between countries. For example, the food industry is much more highly concentrated in the UK than it was in the former West Germany (Shaw *et al* 1989). In 1980, 20 of the largest 100 UK companies had important food manufacturing interests. In the UK in 1977 there were 5600 firms in the food industry; the top 30 companies accounted for 60% of the employment and value added. In 1979 the UK had 15 of the top European food companies ranked by food sales alone (Burns 1983). More recent data (Table 3.5) confirms the variation in concentration within Europe; high levels are evident in the UK, Sweden and Denmark (Table 3.5), relatively moderate levels in France and Germany and relatively low levels in Ireland<sup>8</sup> and Belgium.

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<sup>8</sup> However, data for Ireland under represents small enterprises.

**Table 3.5 Size Distribution by Output of the European Food and Drink Industry in Selected EU Countries, 1994**

Country	% of Output 0-99 employees	% of Output 100-499 employees	% of Output 500+ employees
Ireland*	34.8	56.2	9.0
Denmark	21.3	18.9	59.8
UK	18.2	16.1	65.6
Belgium	45.7	31.1	23.2
Germany	28.0	31.8	40.2
France	33.0	29.1	37.9
Sweden	22.5	24.9	52.6

\*Enterprises with more than three employees

Source: Traill (1997b)

However, Gilpin and Traill (1995), in a study covering 1980 to 1990, found little change in the size distribution of European food processors. Of the nine European countries included in the study, the greatest increase in output share recorded by large companies was an increase of 6.5% in Denmark, while Belgium recorded the greatest decrease at -3.24%. Overall in the study, five of the countries showed decreases in the output share of large companies, while four displayed increases. This empirical evidence tends to contradict the view of the food industry as highly concentrated and increasingly globalised. However, as is evident in the discussion on relations within the food system (see below 3.7) there have been significant concentrations of resources and power in distribution, which has implications for the food industry. In the Irish food industry, concentration has increased in recent times, particularly in the primary processing sector (Tovey 1991).

Most of the merger and acquisition deals have been financially successful, indicating a high level of cash flow in the industry, high levels of value added and savings on rationalisation. But there have been job losses through redundancies (Wallace 1992). A major factor driving recent restructuring of the food industry is corporate concentration. Recent take-overs and buyouts represent the realisation of exchange value (including the market value of brand names) rather than enhancement of use value. This is particularly so

in confectionery, alcoholic beverages and soft drinks. In these sectors, global brands were successful compared with other foodstuffs that are more sensitive to local tastes (Wallace 1992).

The completion of the European Single Market in 1992 was a stimulus to further concentration in the food industry. Paradoxically, there is pressure on food firms to get larger to avail themselves of economies of scale and improve access to markets, while there is also pressure on food firms to stay small to maintain their local and regional appeal (Strak 1989). While mergers and acquisitions are the principal route to corporate growth, other strategies are used by large food firms to attain monopolistic control. These include: control of distribution, innovatory processing technology, strong sales effort and patented production technology, along with saturation advertising (Wallace 1985).

Large firms, because of their size and diversity, can use cross subsidisation to take-over companies and to increase market share. The take over of Miller by Philip Morris is an example of take-over and product differentiation via subsidised expansion. Using funds from other parts of the organisation, the company subsidised its take-over of Miller Company and brands (Connor *et al* 1985). In markets occupied by these large companies, success or failure, are determined by sheer economic power not efficiency. Mueller (1982) notes that when two conglomerates clash, the casualties are often the smaller single product companies. In the US there is no countervailing power to these conglomerates-antitrust laws have little impact. Large conglomerates operating in similar markets and with trading links as food corporations may tone down their competitive nature because of reciprocity and mutual forbearance. The former term refers the willingness to purchase from each other if the business is reciprocated. Mutual forbearance is where companies meet in many markets; there may be an unwillingness to compete because of potential of the other company to retaliate (Mueller 1982). A consequence of concentration and highly differentiated markets in the US is overcharging to consumers. Overcharges are greatest for highly differentiated products and sold in most concentrated markets. On the other hand, there is very little overcharging of products sold in low grade oligopolies. Thus the structural characteristics are closely related to the level of overcharges (Connor *et al* 1985).

### 3.4.2 *Diversification*

As well as increasing concentration, there is also a trend to diversification of products and activities by large food firms (Martinson and Campbell 1980). Diversification can take the form of diversifying the range of products produced from the existing raw supply base or moving into a different agri-food chain (Tovey 1991). Connor *et al* (1985) note that food manufacturers are more likely to diversify within their primary product category and less likely to diversify elsewhere in manufacturing. For example, Grand Metropolitan sold off Express Dairies as it was not part of their core beverage activity (Shaw *et al* 1989). Diversification can be through internal growth or merger; it is particularly relevant to the dairy industry in the EU, as stagnation and decline in dairy production encourage diversification (Jelsoe 1989).

### 3.4.3 *Internationalisation*

The internationalisation of the food industry is a result as well as a cause of change. The trend towards internationalisation is facilitated by the international convergence of food habits, the reduction in explicit and hidden trade barriers and the seeking out of economies of scale through specialisation of production. However, internationalisation also contributes to change as the diffusion of the same products by different forms into different countries encourages the homogenisation of habits and tastes.

In a study of the internationalisation of the Danish food industry, Boon (1997) identified retail structure concentration, consumer demand changes (increasing demand for quality, novelty and variety) and companies operating in limited domestic markets as the main drivers. Also a study by Enright (1998) on internationalisation in the Irish and Danish dairy industries concluded that retail concentration and the limited size of the domestic markets were the main drivers of internationalisation. Increased competition in a saturated domestic market and opportunities created by liberalisation has driven companies in the Dutch agri-food sector to internationalise to achieve economies of scale and scope (Bijman and van Tulder 1997). Paradoxically, Gillett (1998) noted that a major driver of the

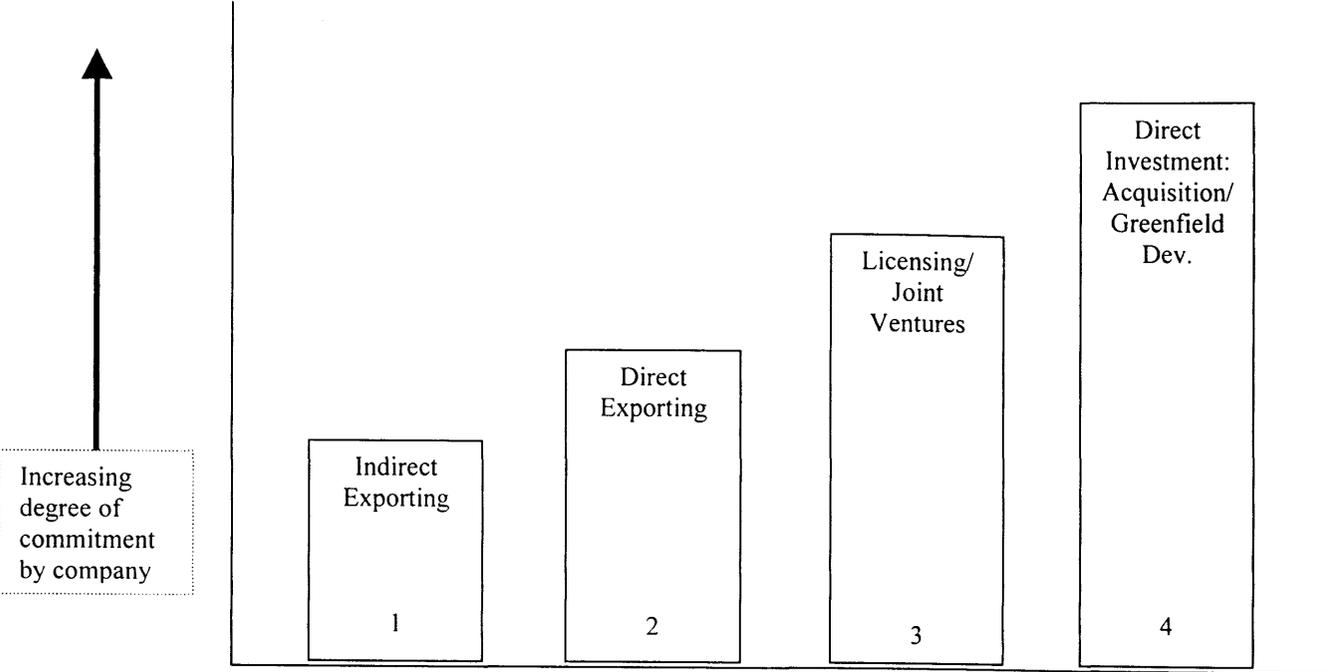
internationalisation of Nestlé's production activities in the 1970s was "to overcome customs' barriers and obstacles imposed by certain countries" (Gillett 1998, 61).

While the trend towards internationalisation seems inevitable, strong national characteristics and resistances will continue to work against it (Bertele 1988). This is exemplified in the differences in context and approach to the emergence of continental markets in North America and Europe. In both cases, the removal of trade barriers is leading to restructuring that emphasises economies of scale in the processing and streamlining of distribution channels (Wallace 1992). Internationalisation takes place predominately for highly processed food products. Foreign investment and internationalisation is rare in less differentiated products such as milk, meat, flour and bread (Shaw 1989). Internationalisation can take various forms involving varying degrees of commitment by the firm (see Fig. 3.2). The form of internationalisation chosen can suit the objectives of the company and the particular circumstances of the host country.

Co-operatives are at a disadvantage in funding internationalisation because there is not an incentive for producer shareholders to invest. Producer reluctance to invest in internationalisation also stems from past failures and from the difficulty in seeing the benefit (especially in the short and medium term) of undertaking such investments. Some co-operatives have sought to get around this problem by changing their ownership structure - this has taken various forms from part-privatisation to organising international activities in subsidiaries owned by non-co-operative investors (Boon 1997).

However, internationalisation has different impacts as it takes different forms; in the Irish food industry during the 1970s it took the form of penetration by foreign companies. In contrast, during the 1990s the trend has reversed as Irish food companies expanded overseas and emerged in a small way as multi-nationals in the sector (Tovey 1991). From the US perspective, investment outward by food companies is three times as large as inward investment. On the other hand in Canada, the US controls over one third of its domestic food manufacturing (Connor *et al* 1985).

**Fig 3.2. Internationalisation Strategies**



Source: author

#### 3.4.4 *Economies of Scale*

The importance and levels of economies of scale vary throughout the food industry; however, it is estimated that in the UK economies of scale are reached at 2% of the total market share. Production economies of scale are most important in highly processed foods (Shaw *et al* 1989). The minimum efficient scales of plant in the food industry are small in contrast to some sectors of agricultural supply industries, such as the fertilisers, tractors and farm machinery (Bowers 1985). However, this seems to contradict the high levels of concentration actually existing in the food manufacturing industry. This may be attributed to TNCs gaining pecuniary and strategic scale advantages from their size (Heffernan and Constance 1994).

The seasonality of raw material supply (particularly in primary processing) affects economies of scale. As a result of seasonality, plant may be idle and under-utilised for periods of the year, while the greater plant capacity required results in overcapitalisation. Larger centralised processing plants can reduce this problem (McKenzie 1979). Scale is also important in research and development economies; advantages accrue from size in innovation and technical change through finance, experience and the ability to take risks (Shaw *et al* 1989).

#### 3.4.5 *Locational Change*

The specialisation that has taken place in food manufacturing (and agricultural production) means that for most food products there is a spatial separation between the consumption of food and its processing and decisions relating to processing. There is no longer a direct relationship between local and regional food production and the food that is available in local stores (Jelsoe 1989). The diverse nature of the food industry makes it difficult to generalise about locational trends. In each sector within the industry, there are particular economic, social and contextual factors at work that result in different locational trends.

However, some general locational trends can be explored, these include: the differing experience of regions in the face of restructuring and the influence of product type on location.

Looking first at restructuring in the food industry, this has mixed consequences for rural regions. While employment in the food industry remains important for rural regions, the trend of increasing concentration and economies of scale adds to the tendency for large scale plants to locate in metropolitan areas, thus reducing rural food employment (Wallace 1992). In a study of food processing in Quebec, Smith (1984) noted a shift to fewer, larger plants, although SMEs still predominated. The growth of large scale units and closer relations between them led to greater locational concentration. Few new units were established, but growth that had taken place had been in metropolitan plants, while smaller peripheral plants had closed (Smith 1984). However, this trend is in contrast to the locational consequences of restructuring in the meat packing industry in North America in the late 1970s and early 1980s. The restructuring has resulted in larger, decentralised, specialised plants located near feedlots in rural areas to avail of cheaper labour. Successful companies in this industry have followed the strategy of locating large capacity plants in relatively isolated rural areas close to feed lots in 'right-to-work' states (Novek 1989; Broadway and Ward 1990).

In the Australian fruit and vegetable processing industry McKenzie (1979) found a conflict between the location of plants near the coast in urban areas (near labour and demand) or inland near raw materials in rural areas (irrigated areas). The tendency was for foreign owned companies to locate in Melbourne, whereas Australian owned corporations and co-operatives located near raw material sites. However, there were considerable links between firms of different ownership types as regards manufacturing. This study adds to the view that foreign owned firms rarely become involved in primary processing.

Turning now to product type, the nature of food products influences the scale of market that can be served by a processor and in turn its locational tendencies. For example, perishable products like milk and bread tend to operate in local and regional markets,

which in turn are served by local and regional plants. Diversification into international markets is less likely for perishable food products, whereas diversification is greatest for non-perishable packaged grocery products (Connor *et al* 1985).

#### 3.4.6 Entry

Many of the strategies used by firms to gain and hold market share operate as barriers to new firms entering these markets. Product differentiation through brand names results in high advertising and marketing costs. These high costs operate as a non-price barrier to entry (Bowers 1985). However, with negative income elasticities of demand in the food industry and saturated home markets, multi-national firms are prepared to invest in foreign markets (Wallace 1985). Production and research and development economies of scale also operate as barriers to entry. This varies with the particular industry and, for example, production economies of scale are very important in beef packing operations (Connor *et al* 1985).

The presence of large retail food chains also presents barriers for firms wishing to enter the food manufacturing sector. In effect the retail chains control the distribution channel to the consumer market while meeting the conditions to supply these chains operates as a barrier to entry. Getting and supporting shelf space in highly branded concentrated industries or products can be very difficult (Shaw *et al* 1989). Meeting the large volume requirements, the hygiene standards and the quality standards of food chains are particular problems for SME's in the food industry. These barriers also operate to prevent food companies going from supplying local and regional markets to supplying large scale buyers (Shaw *et al* 1989). However, food chain 'own brands' (discussed in more detail in 3.7) present opportunities for SME's. Entry costs are lower as there is no need for advertising and the distributor plays a role in product development and quality control. The market share of distributor brands varies between countries and the lower the retail concentration, the lower the share of distributor brands. As a result, distribution labels have a relatively high market share in the UK compared to a relatively low market share in the former West Germany (Shaw *et al* 1989).

In a study of the Australian fruit and vegetable processing industry, McKenzie (1979) discovered four types of barrier to entry: (1) distance from the raw material, (2) product differentiation, (3) economies of scale, and (4) cost barriers. Distance from the raw material supply was especially important in this industry, where transport can damage the product. Product differentiation and high levels of productivity also deterred new entrants. Availability of capital, high labour costs and shortage of labour also operated as absolute costs barriers.

Reviewing the material on structural changes in this section reveals the diversity of the food industry's size, activity, and ownership. However, within this diversity, there is evidence of global convergence in the structure of the industry. As in convergence in demand and consumption, this trend in structural convergence is greatly facilitated by large conglomerates. It is also evidence of increasing globalisation of the world's economy. Large food firms dominate some sectors of the industry, while co-operatives play an important role but have tended to be confined to primary processing. SMEs also play a major role, but are very prone to being squeezed out or taken over by large firms. There are many barriers to entry in an increasingly concentrated, diversified and internationalised industry. The trends of mergers and diversification among large food firms and the growth of small food firms comply with general trends in the global economic system.

For the present study, however, two important points emerge. First, the dominant role played by large corporations in some sectors of the food industry emphasises the importance of linkages between regionally orientated dairy processing companies and these larger corporations. This is especially true, as the dairy industry has become more ingredient supply orientated in some countries. Second, in the continuing internationalisation of the food industry, co-operatives (many dairy companies are co-operatives) are at a disadvantage due to their difficulty in financing international expansion.

### 3.5 State Intervention

Due to the fundamental importance of food to society, the state has always felt it necessary to intervene in the food supply system. In the regulationist approach, the state is central in maintaining a mode of regulation facilitating the reproduction of capitalism. The mode of regulation is maintained directly through legislation governing the manufacture of food and the organisations engaged in it. Indirectly, state influence on the food industry often takes the form of measures that operate on other parts of the food system and in turn influence the food manufacturing sector. In this section, the influence of national and supranational policies on the food industry is examined. First, the influence at national level is examined in a discussion of food prices, the control of large food firms and methods of state regulation. Then the influence of supranational policies is considered in a discussion of the changing impact of the CAP in the EU.

Food prices are politically sensitive and in the past have been subject to state regulation. There is an inherent conflict in the food supply system because consumers want low prices while producers want high prices. The use of price policies and subsidies in the UK has been useful in moderating food prices and countering inflation (Mitchell 1983). The discrepancy between farm gate and food-store prices is often believed to be due to the oligopolistic nature of the food industry. However, the discrepancy is rather the result of adding value through processing, packaging and conveniencing (Wallace 1985).

The increasing power and concentration of large firms in the food industry raises political problems. With the rise of large firms, decision making has been concentrated in headquarters. As a result, local communities lose autonomy over the economic and political decisions affecting them. Decisions regarding location, relocation or close down of food manufacturing facilities are often made outside the region or country concerned. In the US, the response to the growing power of large firms has been to give more power to the federal government. However, the question remains whether the government is responsive to corporate or public interests. It is also very difficult to reduce levels of corporate concentration that already exist. It has been argued that corporations with such

power need to be opened up to greater scrutiny and public disclosure of their business (Mueller 1982).

The state regulates the food industry in a variety of ways and through a variety of channels. In the US, for example, antitrust laws, trade regulations, health standards, labour rules, packaging rules, product grades, all impact on the food manufacturing sector. While the need for regulation is generally accepted, it is a complex area and often involves costs, delays, conflicts and risks (Martinson and Campbell 1980). The formation of policy is also complex with many groups trying to promote their interests. EU and national policies have been crucial in shaping and regulating food markets. Food companies can have an important influence on policies through understanding how decisions are made and lobbying national governments (Swinbank 1987). In the UK, for instance, many groups apply pressure to influence policy formation including: Food and Drink Industries Council, lobby groups, sector associations, Ministry of Agriculture, Fisheries and Food (MAFF), National Farmers Union (NFU), and Consumer interest groups (Stocker 1983).

At different times, different interests can have the advantage in influencing policy. For example, in the UK food industry, following the 1947 Agricultural Act, different interests in the industry had been incorporated into the decision making process with Government, with the farming interest occupying a commanding role. In the late 1980s and early 1990s, concern about food hygiene resulted in new legislation. Greater public awareness of the issues altered the existing policy process. As a result food retailers have a more prominent role in the regulation of the food industry. This shift in influence may result in increased power by retailers over upstream processors (Flynn and Marsden 1992).

National policies have considerable influence on developments in the industry. Governments set the regulatory framework and also seek to protect their national food industries through non-tariff barriers. These often take the form of legislation for health or safety standards (Strak 1989). For example, the health legislation in the UK operates as a non-tariff barrier for the dairy industry (Swinbank 1987). Firms can get around these barriers by modifying the product or by investing in productive capacity within the

country. Public policy also has had a major influence on the development of new technologies. For example, the development of biotechnology is strongly influenced by how governments at national or supranational level regulate it through pricing and other mechanisms (Goodman and Wilkinson 1990). Regulation can benefit large companies by acting as a barrier to entry of small firms. The fear of regulation can also deter small biotechnology companies. As discussed earlier SMEs are important in innovation and product development, therefore regulation as a barrier to SMEs may hinder the development of the industry (Tait 1990).

The interests of the industry (often supported by the state) may not be compatible with the interests of other segments of society. For example, in the Irish food industry, the state supports and encourages concentration, internationalisation and integration, anticipating a stronger industry as a result. However, the consequences for the workforce and consumers may not be positive. As the industry internationalises, primary processing may concentrate in Ireland, while secondary processing may be undertaken abroad. This trend would lead to the underdevelopment of the Irish food industry and subsequently limit opportunities for the Irish labour force (Tovey 1991).

Supranational bodies also have significant influence on the operation and regulation of the food industry. This is particularly the case in the EU, where the CAP<sup>9</sup> and other structural policies have a significant impact on the food industry in individual states. While products subject to the CAP only include farm produce and the product of first stage processing, measures taken under common market organisation affect the entire food chain (Tracy 1993). Swinbank (1983) considers that the CAP has changed the UK food industry in three ways. First, it has resulted in a change away from a cheap food policy. Second, domestic agricultural production has been stimulated thereby changing the sources of supplies to the food industry. Finally, with the responsibility for price supports falling on the food industry, the complexity of its role and the risk it takes has increased.

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<sup>9</sup> See Chapter 5 for a more detailed discussion of the development of the CAP and its impact on the dairy industry.

First and second stage processors have different views on how they would like CAP policies to develop. Since first stage processors have secure outlets for their products, they like to see higher guaranteed prices. On the other hand, second stage processors, who often purchase inputs from first stage processors subject to CAP prices, must place their output in a highly competitive market. They are, therefore, caught between the rigidities of input prices and pressures from retailers. The CAP system also discriminates against small food firms. The growing complexity of the system requires specialist skills and knowledge that only large firms have the resources to acquire. Small firms must rely on trade associations or government departments, and information from these sources may not be so timely or so specific as it would be from specialists (Harris and Swinbank 1997). The overproduction crises in agriculture, particularly in the EU, and the resulting trade conflicts have resulted in a move away from agricultural productionist-orientated policies to rural development policies. Bertele (1988) considers a decline in support could be critical for primary processing, particularly in the co-operative sector, while secondary processing would be less affected and could benefit.

Support and direct aid to the industry can have varying consequences. In the case of the Australian fruit and vegetable industry, government protection of the co-operatives has left the industry very vulnerable. Further concentration and restructuring are likely in response to changes in the national and international market (McKenzie 1979). The case of the Australian fruit and vegetable industry is in contrast to the impact of New Zealand's Dairy Board policy of promotion of the manufacture of higher value products to individual customer specification for increasingly diverse export markets. The ensuing rationalisation and modernisation has enabled the dairy industry to retain its important position (Robinson 1988).

The mode of regulation for the food industry is a complex one. It operates at several levels, with a variety of mechanisms and is subject to change. Conflicts of interest are evident within food manufacturing and within the food supply system. In the food industry, there is evidence of a change in the mode of regulation. Previously, the mode has been one dominated by productionism and protectionism. There is now a change to a

different mode of regulation where the demand and the market regulated by national and supranational agencies dominate the food system.

### 3.6 Labour

The relative importance of labour in the food industry, the trend of declining employment levels and the impact of restructuring on employment are discussed in this section. The food manufacturing industries are relatively intensive in the use of materials, capital and advertising. Therefore, labour costs form a relatively small proportion of total costs; for example, in the US, they comprise 12% of shipment value compared to twice this for all manufacturing (Connor *et al* 1985). In the US, wage rates in food manufacturing were 5% below the manufacturing average. Connor *et al* (1985) attributed this to low skill levels, rural location and weak labour organisation. The diversity of food conglomerates across industries, countries and types of labour tends to diffuse labour power, resulting in uncoordinated bargaining in the US (Mueller 1982).

Male employees tend to comprise the majority in food manufacturing employment, while women dominate part-time employment in the food industry. In 1987, in the UK, women accounted for 41% of employment in the food industry, this compares with women comprising 54% of employment in the total food system (includes distribution, retailing and catering), 35% in food distribution, 63% food retailing and 54% hotel and catering. In all of the sectors, women make up the majority of part-time employees (Little 1990).

Mergers, restructuring and rationalisation have resulted in job losses in the industry. In the British food industry, for example, employment declined from 659,000 in 1981 to 500,000 in 1992, a decline of 24%, this contrasts with an overall increase in the British food supply system (includes distribution, retailing and catering) of 71,000 or 3% in the same period. Employment in the retail sector increased by 28,000 and by 294,000 in the catering sector in the same period (Tansey and Worsley 1995). A dramatic decline occurred in milk processing in the UK, where employment declined by almost a half. However, during this

period increases in productivity have risen rapidly and at faster rate than UK economy in general (Errington and Harrison 1990).

Also, in New Zealand, rationalisation in the dairy, meat and fruit and vegetable processing resulted in a decline in employment. However, growth in the number of smaller enterprises can contribute to overall growth in employment. This is true for small operations in urban areas or locations in association with primary production (Robinson 1988). Changes in other parts of the food chain can effect employment in the food manufacturing sector. For example, the introduction of quotas for milk production resulted in a decline in employment in milk processing (Errington and Harrison 1990).

Some segments of employment in the food industry are regarded as core labour markets, which enjoy high wage levels and good conditions. Novek (1989) argues that as part of the transition to flexible specialisation, unstable product markets and technological transformations are resulting in the decline of core labour markets and the expansion of competitive markets. In the example of the Canadian meat packing industry, examined by Novek, it is evident that changes in production technology, markets and industrial organisation are altering the industry's operating environment, leading to a decline in employment and wage levels. Novek argues that the transition has not been to fully fledged flexible specialisation but, rather, explanations are to found in industry-specific economic problems as well as global theories. Production has become a more intensified form of mass production rather than automation.

In the food manufacturing industry, employment is not as relatively important as in other manufacturing sectors. Despite this, there is evidence of considerable restructuring, with a decline in employment levels and increases in productivity. However, empirical work on employment trends in relation to part-time employment and subcontracting are not available to examine if there has been a move to more flexible labour practices, in line with a post-Fordist regime of accumulation.

### 3.7 Relations Within The Food Supply System

The food supply system has become more integrated and the growth of powerful retail food chains has had major implications for the food manufacturing industry. In this section, the increasingly powerful role of these food chains and its impact on food manufacturing is examined. Also, the trend towards closer relations through vertical integration and informal relations between manufacturing and other parts of the food system is explored.

The integrated and interdependent nature of the food supply system results in changes in one sector having repercussions for other sectors. The increasing power and concentration of the major food chains impacts on the food manufacturing sector. This tendency is an effort to counter the strength of the multi-national food firms (Wallace 1992). Food retailing is dominated by large multiples, in which power has concentrated at the expense of processors, manufacturers and small retailers (Wallace 1985). Large distributors have become increasingly powerful (Flynn and Marsden 1992) enabling them to dictate the terms of commercial transactions to food manufacturers and through them to agriculture (Lang and Wiggins 1985). For example, in the UK food industry from 1981 to 1992, profit levels declined for food processors while levels increased for multiple retailers (Traill 1997b, 49). However, retailers are also diverse, especially in the format presented to the customer; they vary in the range of products stocked, price level, location, level of service, store size and degree of concentration on food products. Rabobank (1999) identifies three formats that dominate in Europe: first, the hypermarket, prevalent in France, has an extended range and a strong focus on price; second, the discount store, a strong feature of German retailing, has a very strong focus on price and a limited range; third, the superstore dominant in the UK has an extended range and a strong focus on service (Rabobank 1999, 22).

As in food manufacturing, there has been increased concentration resulting in fewer, larger organisations in food retailing. The growth has been through the expansion of store space (see Table 3.6) and mergers and acquisitions. The concentration is encouraged by the desire to increase market share in a static food market. There has also been some

internationalisation, often through joint ventures and alliances to reduce risks. Examples of alliances include the European Retail Alliance<sup>10</sup> (ERA), European Marketing Distribution<sup>11</sup> (EMA) and Deuro<sup>12</sup> (Traill and Grunert 1997). A feature of the late 1990's has been some large mergers and acquisition in the retail sector both internationally and inter continentally (see Table 3.7). Of the retail mergers during 1998 and 1999, 56% were domestic, 29% were intra-continental and 15% were cross-continental (Rabobank 1999, 34). Retailers are also internationalising through expansions outside their home counties, for example Aldi, Tesco, and Spar have been very active in expansions within Europe (Rabobank 1999).

**Table 3.6 The Number of Hypermarkets (>2,500M<sup>2</sup>) in Selected European Countries 1981-1991**

	1981	1991
France	433	849
UK	279	733
Italy	12	118

Source: Collins (1997)

At the operational level, the number of stores has declined and floor space has increased. Fewer, larger stores have resulted (see Table 3.6). These stores have convenient location, extended opening hours, broad product ranges and competitive prices. In line with developments in food manufacturing, there is also some polarisation in food retailing. But along with the growth of large stores is the growth of small health food shops. Some major retail groups have responded by developing small store formats aimed at particular segments (Shaw *et al* 1989).

<sup>10</sup> Includes Argyll (UK), Casino (France) and Ahold (Netherlands).

<sup>11</sup> Includes NISA (UK), Markant (Ger), ZEV (Austria), Selex (Spain), Uniarme (Poland) and Selex (Italy).

<sup>12</sup> Includes Asda (UK), Metro (Germany), Carrefour (France) and Makro (Netherlands).

**Table 3.7 Selected Retail Mergers and Acquisitions 1998 and 1999**

Acquiring Company	Companies Acquired
Ahold (Neth)	Giant Food (USA), Yahona Corp (Malaysia)
Carrefour (France)	Comptoirs Modernes (France)
Vendex Food Group (Neth)	De Boer Unigro (Neth)
Rewe (Germany)	Julius Meinl (Austria)
Leclerc (France)	Systeme U (France) strategic alliance
Wal-Mart (USA)	Asda (UK)

Source: Rabobank (1999)

Concentration in the retail food chains has had several implications for the food manufacturing sector. It has catalysed changes in consumption, changed the competitive mechanisms by reducing the importance of the sales network as a strategy, lowered barriers of national and local markets and with the development of private and generic brands and stimulated smaller firms to find captive markets (Bertele 1988). Concentration in retailing concentrates the power of the retailers and increases the competition for the available shelf space. This reinforces the significance of brand leaders and product differentiation. However, the importance of strong brands limits the power of the retailers. Fragmentation also has increased competition for shelf space, further reinforcing the significance of brand leadership (Wallace 1992). However, retailers have significant bargaining power in dealing with weaker brands and private and unbranded products (Connor *et al* 1985; Shaw *et al* 1989).

The retail food chains often use small and medium enterprises (SMEs) to manufacture their own brand products (Wallace 1985). These manufacturers do not have the resources to differentiate products and are often heavily dependent on sales to retailers under retailer brands (Martinson and Campbell 1980). On the other hand, the retail chains can choose between several alternate suppliers. These SMEs need to deal with specialist and niche markets which capitalise on small scale operations (Shaw *et al* 1989). The introduction of scanning technology along with loyalty cards for customers has also assisted the retail food chains. The technology gives retailers valuable information on product movements, the impact of promotions and customers buying patterns. The information from these

technologies, which is not available to manufacturers, enables retailers to specifically target product development and promotions (Traill and Grunert 1997). New technologies have also been applied to the organisation of distribution within the branch network and some retailers have introduced centralised distribution. Centralised distribution reduces inefficiencies in the supply chain; the resulting cost benefits are shared between manufacturer and the retailer.

Private (or own) labels have become an important tool for retailers in counteracting the appeal of strong manufacturers brands. Retailers can use private labels to bargain for lower purchasing prices for manufacturers brands and the majority of profits from private labels accrues to the retailer and is not shared with the manufacturer, as in the case of manufacturer brands (Rabobank 1999). There are four different types of private label products referred to as 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> generations. 1<sup>st</sup> and 2<sup>nd</sup> generations provide cheap alternatives to manufacturers brands; 3<sup>rd</sup> generation imitates the quality characteristics of established brands and competes on price; while 4<sup>th</sup> generation competes directly with established brands in terms of quality and innovation (Traill 1997b, Rabobank 1999). The market share of private labels has increased across all markets; in 1998, private labels accounted for over 40% of grocery sales in the UK, over 30% in Belgium and in excess of 20% in Germany, Netherlands and France (Rabobank 1999, 31). The market share of private labels is still growing in many European countries especially those with a relatively low level of penetration to date such as France and Germany. Food products with high private label penetration include chilled ready meals, meat pies, long grain rice, cream bacon and milk (Collins 1997). The growing importance of private labels presents threats and opportunities to the food industry; a threat as the power of the retailers increases and the margins and profits are squeezed further. Private labels also present an opportunity to preferred suppliers to expand production and internationalise in partnership with their customer.

Such is the influence of the retailer on the food industry that many food companies base their strategy on their relationship with retailers. Traill (2000) identified seven different strategic groups (see Table 3.8) of EU food manufacturers. From these strategic

groupings, it is evident how important the private brand and the retailer have become in contemporary food industry. In addition to entry barriers in the industry, Traill also identifies “mobility barriers” (that is barriers which preclude the free movement of firms between strategic groups in the industry). The resources to affect a particular strategy take many years to develop and are not easily reproduced (Traill 2000).

In the literature, there is an underlying assumption that the consumer is in a powerful position. However, Jelsoe (1989) challenges this assumption. He argues that consumers lack the resources of time and knowledge to influence decisions taken by private firms with regard to product development. The consumer does not influence production technologies, choice of foods in stores or the location of shops. Nevertheless, recent responses to consumer resistance to GMO foods by a number of large retail chains in Europe throws this argument into some doubt.

The result of the development of the food supply system has been the separation of food production from the everyday life and experience of the consumer. Based on the views of consumer groups in Denmark, consumers would prefer a more decentralised food system, with more co-operation and influence at a local level (Jelsoe 1989).

In discussions of the food supply system, the foodservice (or catering) sector is often excluded but it is increasingly significant as eating outside the home becomes more prevalent. This sector has a diversified and highly fragmented structure, reflecting the culture and tradition associated with food and new powerful socio-economic trends. In Europe, there has also been vertical integration by large food and breweries firms into catering. There is a trend towards increasing homogenisation of catering structures. Internationalisation of the food industry is eroding the cultural barriers and intensifying the international standardisation of catering services (Goodman 1989).

**Table 3.8 Strategic Groups of EU Food Manufacturers**

Strategic Group	Description	Country and Sector
National Branders	Supply national products for national markets.	Newer member states (Finland Sweden Greece) industry not yet internationalised.
International Product Innovators	Supply branded products internationally.	Denmark -small country with well developed internationally orientated large-scale food industry.
National Private Label Suppliers/Local Branders	Supply private label to national retailers.	UK, Finland, Belgium-countries with high level of private label penetration.
Local Unbranded Suppliers	Supply unbranded products to local markets.	Apply to all countries, especially Italy.
Efficiency Seekers	Supply commodity products on home and EU markets.	France, Germany, Ireland, Portugal –countries with large meat processing sector where efficiency important.
Quality and Market Skills	Sell products on basis of quality to home and foreign markets.	Nothing notable.
International Process Innovators	Supply mainly private label to retailers internationally	Not enough to make inferences.

Source: Adapted from Traill (2000)

### 3.7.1 Vertical Integration

Firms, in seeking to maximise profits, try to limit risk and uncertainty by controlling input and output aspects of their business. Direct control of these aspects by vertical integration is an important aspect of relationships within the food supply system. However, informal links are increasingly important for food manufacturers, especially with retailers.

There is some backward integration by processors to agricultural production. This feature is more prominent in the US than in other western developed countries. In the US, it is estimated that 25% of farm produce is produced under some form of vertical integration. It is most significant in the broiler industry. The increased vertical integration is facilitated

by expansion of commodity futures markets, which is a major price-making force in the US (Martinson and Campbell 1980). In the UK, it is not as widespread. Contract farming exists for vegetables where a relatively few producers can meet the demand (Bowers 1985) and also for poultry. However, farmer driven vertical integration in frozen vegetables also exists (Malcolm 1983). For most sectors of the food industry requiring agricultural inputs, full backward integration is not feasible given the huge investment and the problem of supply co-ordination (Bowers 1985).

There has not been much integration backwards into manufacturing by retailers (Connor *et al* 1985). There has, however, been closer informal liaison between retailer and manufacturer. Developments in information technology have assisted in promoting informal links. This trend is likely to increase as concentration in retailing and manufacturing continues to increase (Shaw *et al* 1989). Formal vertical relationships by retailers have absorbed wholesale and distribution activities. Retailers, therefore, tend to purchase directly from the manufacturer and have established their own centralised distribution systems. The move to centralised warehousing is more prevalent in the UK (because retailing is more concentrated) than in Europe (Wallace 1992).

Goldberg (1993) notes closer co-ordination within the food system in the 1990s with linkages into each others information systems, resulting in 'just-in-time' management and immediate response to individual customer requirements. This trend represents flexibility in operation and response, a feature of the post-Fordist regime of accumulation. Capital tied up in inventories for the food chain is minimised. Close relationships between manufacturer and retailer are required. As well as an increase in links between parts of the food system, there are also considerable links within the food manufacturing industry. Food manufacturing and processing companies, trade with each other; for example, flour companies sell to bakeries and pasta manufacturers while the dairy industry sells milk powder to bakeries (Connor *et al* 1985).

The growth in the power of retail food chains has impacted on the food manufacturing sector. Product differentiation and the development of close links with retailers has

become more important for final food manufacturers. These changes have provided some opportunities for SMEs, but the price of opportunity may be dependence on a food chain. The greater flexibility, closeness and more integrated nature of inter-firm relations is indicative of a change in how firms in the food industry operate.

### **3.8 Conclusion**

The food manufacturing industry is very diverse in its range of activities, size of enterprises, types of ownership and strategic orientation. It is difficult to generalise because of the many processes involved. This sector has become more consumer and demand orientated, responding to the increasing power of the food chains and the fragmented demands of the consumer. The rise of the retailer has tended to neutralise the power of manufacturer's brands and the food industry has responded by increasing its scale, internationalising its activities and increasing its focus on product development (Traill and Grunert 1997). The traditional relationship of the processor processing what the farmer produced has moved on to the processor producing what the buyer demands. The food industry exhibits tendencies towards globalisation in the form of international convergence of food demand, consumption and manufacturing industry structure, as well as internationalisation of the industry itself. Restructuring has impacted on the industry, resulting in increased concentration, the growth of SMEs, increases in productivity and efficiency and decline in overall employment. The industry is becoming more closely integrated in the food chain, with closer links being formed in particular with food retailers.

While some trends identified in this review point towards a transition to a post-Fordist regime of accumulation, it would seem a large section of the food industry continues to operate in a Fordist regime. Post-Fordist tendencies include: an increasingly fragmented market, more automated production, flexibility within the production system, mergers between big firms and growth of SMEs, a change in the mode of regulation, and close-inter firm links between food supply companies. Many of these trends also point to a shift to a

third food regime. However, there is insufficient empirical data to specifically confirm a shift in the regime of accumulation from Fordism to flexible accumulation.

For the present study of dairy processing, four conclusions can be drawn from the literature considered in this chapter. First, the dominant role of large international food companies and retailers in Europe highlights the importance of close links with these companies for the more regionally orientated dairy companies. Second, the importance of linkages straddles food manufacturing and retailing. Food manufacturing, as the dairy industry is increasingly a supplier of ingredients to other food sectors, most often dominated by large companies. Food retailing also exhibits continuing concentration and internationalisation. Third, much of the European dairy industry is co-operatively owned and suffers disadvantages for financing and engaging in long-term strategic investments in international activities. Fourth, some difficulty can be anticipated in identifying and differentiating between Fordist and post-Fordist MSRs since there is insufficient evidence in the dairy sector of a clearly defined shift in the regime of accumulation.

## **Chapter 4**

### **Methodology**

#### **4.1 Introduction**

In this chapter the methodology adopted to address the research question set out on page 3 is explained. Initially, the composition of the MSR is examined. The data and methodology required to identify the various elements of the MSR is established. Specific methods to collect and analyse such data are then detailed. Processes used to validate the findings of the study, and issues related to the presentation of the data, are also discussed.

#### **4.2 Operationalising the Research Question**

As discussed in Chapter 1, the central research objective of this thesis is to:

"Explain the evolving forms and consequences of national MSRs for the dairy processing industry in Ireland and Denmark".

The reasons for comparing Ireland and Denmark are: (1) both are countries in which the dairy industry is of significant importance, (2) both countries joined the EU at the same time, (3) Denmark's dairy industry is often regarded as a role model for Ireland, and (4) the different experiences of the industries should illuminate the role of national MSRs in the transformation process.

Thus, the central concept in the study is the Mode of Social Regulation (MSR). From Chapter 2, the MSR has been defined as:

*"a set of codified social relations which have the effect of guiding and sustaining the accumulation process."* (Aglietta 1979, 382).

Some definitions of Mode of Regulation (MR), however, provide a better empirical direction for research. Dunford, for example, (1988) listed what is included in a mode of regulation:

*“A mode of regulation is a collection of institutional arrangements and rules of behaviour. Included under this heading in a capitalist society are at least three sets of arrangements: (1) mechanisms connected with the regulation of the wage relation ..... ; (2) monetary mechanisms; and (3) modes of competition within the capitalist sector”* (Dunford 1988, 355)

Marden (1992) has a more complete list of five elements (already referred to in Chapter 2, p.18):

- (1) the form of monetary and credit relationships
- (2) the type of competition
- (3) the wage-labour relation
- (4) the mode of adhesion to the global regime
- (5) the form of state intervention.

The meaning of each of these elements is considered in more detail in chapters 6 to 10.

However, it is also recognised that the MSR is socially contested and includes the concepts outlined by Tickell and Peck:

*“Comprised of a complex ensemble of social norms and habits; state forms, structures and practices; customs and networks; and institutionalised compromises, rules of conduct and enforceable laws”*  
(Tickell and Peck 1995, 360)

Therefore, to operationalise the concept of MSR for applied research purposes, the MSR will be interpreted to include the five elements outlined by (Marden 1992) (see p.18), whilst recognising that the MSR is socially contested. In addition to Marden’s five elements, the socially contested nature of the MSR is examined through investigating the

emergence of *hegemonic groups or coalitions*. This sixth element of the MSR is identified by the author as significant in the analysis of Chapters 6 and 7. This sixth element will ensure that the issue of the MSR being socially contested remains central to understanding the form of the MSR. These six elements are the basis for identifying the data that are required to answer the main research question.

In many of the empirical studies undertaken on regulation and the MSR, the specific methodology is not made explicit. However, the use of secondary sources in constructing the mode of regulation and detailing the consequences of the regulation is common. Pritchard (1996) uses secondary sources, such as dairy industry organisation reports, and quantitative data on the market, profitability, acquisitions and financial restructuring to build up a picture of the regulatory framework. Similarly, Bowler (1994) relies on secondary sources to construct the MSR elements that include the quota system and the institutional structure for the broiler industry in Ontario. Kim and Curry's (1993) study of the US broiler industry also used secondary sources (industry reports, government data sources) to establish the historical development, current form, organizational structure, technology and internationalisation of the sector. Similarly, secondary sources were relied upon in Banks and Marsden's (1997) study of the UK dairy industry, and Pritchard's (1999) study of the Australian wine industry, and Glasmeier's (1991) study of the evolution and development of the Swiss watch industry.

In contrast Jones and Clark (2000) used primary interview sources, backed up by secondary sources, to explain how a rural regime developed in their study of the wine sector in the Languedoc. This study has the advantage of using longitudinal analysis of interviews, which covered a 15 year period. Since the MSR is socially constructed, maintained and contested, the use of a primary source involving the principal actors in the MSR is important. Therefore in this study, a methodology to collect primary data is used, based on access to the actors in the MSR; the methodology employs qualitative interviews with the key actors. It was hoped that such a methodology would reveal the socially contested nature of the MSR, which may be more elusive using secondary sources.

The three stages in addressing this research objective are: (1) to construct the two national MSR for dairy processing (Ireland and Denmark); (2) to identify the consequences of the MSR in the two countries; and (3) to compare the MSR and their outcomes for the Danish and Irish industries. For the first and second research stages, a combination of quantitative and qualitative data collection and analysis methods will be used. Qualitative data from interview sources and quantitative data from various secondary data sources are the principal sources for researching the outcome of the MSR. The use of the two approaches will provide a deeper understanding of the issues, since findings from one approach can corroborate that of the other. This is part of the 'triangulation approach' to the validation process (see section 4.6). The form and outcome of the MSR identified in stages one and two is the basis on which the third research stage is completed, that is comparing the MSR and their consequences for the Irish and Danish dairy industries.

#### *4.2.1 The Form of the MSR*

Two aspects of the MSR must be identified: (1) its form and (2) its consequences. As indicated, the main source of data for identifying the form of the MSR is qualitative data collected through interviews with key respondents in dairy companies and other relevant organisations. However, this is complemented by quantitative data from secondary sources (see Table 4.1).

#### *4.2.2 The Consequences of the MSR*

The consequences of the MSR can be identified from the structural and spatial features of the industry in Ireland and Denmark. The outcome is also evident from the results of socially contested regulation in Ireland and Denmark, which is explored in the interview process.

**Table 4.1 Data Sources on the Form of the MSR**

MSR element*	Secondary sources	Primary interview source
Form of state Intervention	Chapter 5 (regulatory framework for the dairy processing industry).	State intervention section of interview with industry and government actors.
Monetary/Credit Relations	Annual Reports/ Analyst reports.	Financial relations section of interview with industry, representative groups and government actors.
Wage Labour relation	Census data, company reports and employers' organisations reports.	Labour relation section of interview with industry and trade union actors.
Competition	Company and marketing organisations reports.	Competition section of interview with industry actors. Customers and suppliers section with industry customers and suppliers actors.
Adhesion to Global Regime	Company and industry organisations reports, analyst reports and printed media.	Global regime section of interview with all interview actors.
Hegemonic groups	Printed media reports on the industry. Company representative organisation reports.	Hegemony section of interview with all interview actors.

\* From Marden (1992) and p.18 above

Therefore, quantitative data on the structure and geography of the dairy processing industry in combination with qualitative sources on the emergence of hegemonic groups or coalitions, identifies the outcome of the MSR (see Table 4.2).

**Table 4.2 Data Sources on the Outcome of the MSR**

MSR Consequences	Secondary sources	Primary sources
Industry structure	Industry directories /company annual reports.	Industry structure and global adhesion sections of interviews with all interview actors.
Industry geography	Industry directories /company annual reports. Representative organisations maps.	Industry structure and global adhesion sections of interviews with all interview actors.
Social norms/ habits, customs and networks.	Previous studies of the industries.	Hegemony section of interview with all interview actors.

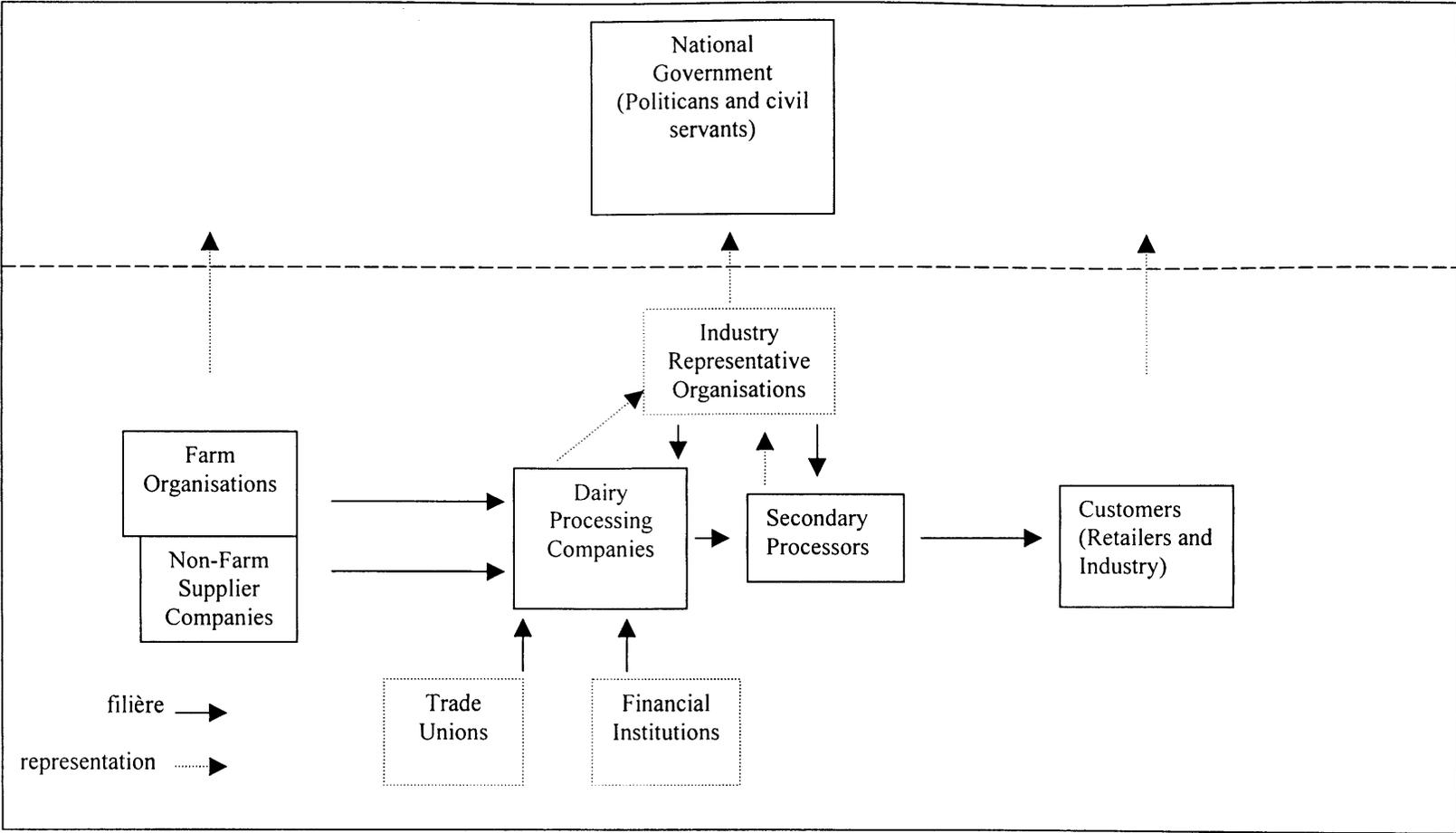
### 4.3 Primary Data: The Interview Sample

The five elements of MSR defined by Marden (1992) and p.18 above, and elaborated upon in Tables 4.1 and 4.2, suggest the organisations to be included in the interview process. The interviews undertaken must collect sufficient data to enable the MSR of the respective dairy industries to be identified. Data concerning industry structure, finance, competition, labour relations, adhesion to the global regime, state intervention and the socially contested nature of the MSR must be collected.

To comply with these criteria, four different types of organisations to be interviewed have been identified: (1) the dairy processing industry companies, (2) representative organisations (including financial institutions, trade unions and industry representative organisations), (3) customers and suppliers of the industry and (4) Government and political representatives (see Fig. 4.1 and Tables 4.3 and 4.4). Populations for each of these types of organisations were identified from the following sources for the Irish industry: Irish Co-operative Organisation Society directory, Institute of Public Administration diary, guidance from a company personnel executive in identifying appropriate trade unions, guidance from an academic colleague in identifying relevant banks and farm organisations. In the case of the Danish industry, the principal source was Mejeribrugets Lommebog published by Mejeribrugets Arbejdsgiverforening (1997); in addition a dairy industry executive assisted in identifying important customers.

The survey interviews were based on randomly selected organisations from each sector of the dairy processing industry. Sample proportions varied according to a subjective researcher judgement of the number of interviews necessary to account for validity within each sector. It was hoped to get similar proportions of interviews in each country for purposes of comparison.

**Fig 4.1. Dairy Supply System: actor groups included in the interview process (Appendix 8 and 9)**



Source: author

#### *4.3.1 The Dairy Processing Industry*

The dairy processing industry comprises companies which process milk and manufacture milk products. Since the focus of this study is on the dairy manufacturing sector, the farmhouse sector (principally small scale cheese manufacture) is excluded. There are 41 Irish dairy companies in total, including 34 co-operatives (ICOS 1993) and seven<sup>13</sup> privately owned processors. Denmark has a total of 48 dairy processors, 19 co-operatives and 29 private dairies (Danish Dairy Board, 1996).

For the dairy processing industry, interviews were planned with a number of key actors in the management hierarchy of each organisation. Interviewing more than one person checks the consistency of data collected (Schoenberger 1991). Also, by interviewing a number of people, access is gained to specialists who have greater knowledge of the issues in their specialist field. Ideally, interviews were planned with the Financial, Marketing and Personnel executives. In addition, interviews were planned with the chairman (or a board member) and the chief executive. The smaller companies may not have the specialist executives; therefore, one interviewee may cover several of the specialist areas.

For the Irish industry, it was planned to include a co-operatively owned company, a PLC company, a foreign owned company and a small processor. This mix would reflect the diverse ownership structures in the industry. For the Danish industry, it was planned to include the two largest companies, which dominate the industry, a foreign owned company and a smaller processor.

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<sup>13</sup> Based on author's research.

**Table 4.3 Planned Allocation of Interviews within the Irish Dairy Processing Industry**

	Population Size	No. of interviews.	% Sample Size
Dairy Processing and secondary processing Industries.	41	10 (from 5 Companies)	12
Representative Organisations (industry orgs., farm orgs., trade unions and financial institutions).	19	15	79
Customer and Supplier Companies.	31	10	32
Government/Government agencies/Politicians.	N/a	4	--

**Table 4.4 Planned Allocation of Interviews within the Danish Dairy Processing Industry**

	Population Size	No. of interviews.	% Sample Size
Dairy Processing and secondary processing Industries.	48	10 (from 5 Companies)	10
Representative Organisations (industry orgs., farm orgs., trade unions and financial institutions).	26	15	58
Customer and Supplier Companies.	47	10	21
Government/Politicians.	N/a	4	--

#### 4.3.2 *Representative Organisations*

Representative organisations include organisations, which have a direct interest in the industry, either representing the industry or representing groups closely related to the industry. Included in this group are trade unions, farm organisations, financial institutions and industry representative organisations. The total number of organisations identified in this group for the Irish and Danish industry, are 19 and 26 respectively (see Tables 4.3 and 4.4). It was planned to undertake one interview with 80% of the organisations chosen randomly. The interview is with the most senior personnel *with responsibility for the dairy processing industry*. This is appropriate because in larger organisations related to the industry (e.g. a trade union or financial institution) the most senior person may not be the person with the most knowledgeable about the dairy industry.

#### 4.3.3 *Customers and Suppliers (Non-Farm) of the Industry*

This is a diverse group of national and international companies, which are customers and suppliers of the respective dairy industries. In the case of customers the relevant companies can be easily identified, that is the supermarket chains with the largest market shares in each country. Important suppliers for the industry, apart from farmers, tend to be engineering, packaging and ingredient companies. It was planned to undertake one interview with each of 5 suppliers and 5 customers in each country. The interview was to be with the buyer or sales person with responsibility for the dairy processing sector. Interviews with foreign customers would also be desirable, but did not prove practical because of the travel and other costs involved in undertaking such interviews.

#### 4.3.4 *Government, Government Agencies and Political Representatives*

In the case of both national industries, there is a specific government department whose responsibility includes the dairy industry: the Ministry of Food in Denmark and the Department of Agriculture, Food and Forestry in Ireland. It was planned to undertake

interviews with two senior civil servants and two senior political figures (an interview with a former Minister would be especially valuable) in respect of each industry.

In total, therefore it was planned to undertake 39 interviews in respect of each national industry (i.e. 78 in total).

#### **4.4 Primary Data: Collection**

##### *4.4.1 The Interview Process*

Patton (1990) identifies three approaches to collecting data through qualitative interviewing: (1) informal conversational interview, (2) general interview guide and (3) a standardized open-ended interview. The latter approach is used in this study. The first two approaches are too unstructured for the purposes of this study, whereas the latter approach facilitates a specific focus on the elements of the MSR. In addition, the approach will ensure that comparable data are gathered. The qualitative research interview (QRI) is an appropriate methodology when the focus is on the meaning or development of a phenomenon (Cassell and Symon 1994), as it is in this study of the MSR. In this study, the QRI is applied in a corporate context. This type of methodology is important as it brings out the testimony of participants and can enrich other sources. Also, with this approach, the loss of statistical generalization permits real world complexities and predicaments to be highlighted (Schoenberger 1991). While the QRI can be used to tackle broad issues, and is readily accepted by research participants, it is very time consuming for the researcher, tiring to conduct and can result in a data overload (Cassell and Symon 1994).

A potential problem in this type of interview in a corporate context is the loss of control of the interview by the interviewer. The interviewees are usually in positions where they are used to being in charge and may try to impose their control on the interview (Schoenberger 1991). A good knowledge of the firm/organisation, interviews with more than one person in the organisation, and the checking of inconsistencies during the actual interview can reduce difficulties with the interview process (Schoenberger 1991).

Ideally in Schoenberger's view, the interview:

*“should be structured and directed, but neither inflexible nor passive. In particular, it should allow for discussion and dialogue-even debate over controversial points. In short, the interviewer should be actively engaged in the process”* Schoenberger (1991, 187).

For this study, the use of a standardized open-ended interview permits data to be collected on specific aspects of the MSR, while allowing interviewees to respond in their own words and express their own perspectives. The semi-structured interviews were based on an interview schedule. The interview schedule was developed based on gathering data on the different elements of the MSR, incorporating both the form and outcome of the MSR. As a result, questions were developed under the following headings: industry structure, competition, employee relations, financial relations, state and EU intervention, links to global regime and hegemony (see schedule in Appendix 1). In qualitative research, "good questions should, at a minimum, be open-ended, neutral, singular and clear" (Patton 1990, 295). This has been the aim in the design of the interview guide and the interview schedule. Open-ended questions were used. Leading questions and questions with a yes/no response were avoided. Singular questions in the language of the respondents were used as far as possible.

The interviewees were drawn from different backgrounds and had expert knowledge in different areas. It was sometimes not possible to cover all the topics in the schedule in the time available for an interview. Therefore, the topics covered in the interview varied with the background of the interviewee to maximise the potential of the interview (see Appendix 2). For example, a large proportion of the interview with trade union officials and personnel executives was taken up discussing labour relations, while the focus was much more on competition and the market with a marketing executive.

The interview schedule was pilot tested on 5 interviewees. Four important issues emerged from the pilot work, which necessitated revision of the interview schedule. First, there

were too many questions, with the result that the interviews took in excess of 75 minutes rather than 45 minutes as planned. Also, this limited the time available for probing examples raised or following up interesting points. Second, some of the questions were too similar to each other, resulting in the respondent repeating the same answer. Third, questions specific to supplier/customer companies to capture the influence of backward and forward linkages had not been included. Fourth, in the policy section, questions needed to be more focused; for example, with trade unions officials, questions on labour and health and safety legislation were more relevant than currency policy.

In the final version of the interview schedule, therefore, the following revisions were made. The total number of questions was reduced from 66 to 59 (if the new sections added for supplier and customer companies is excluded, the number of questions was reduced from 66 to 48); questions in which answers overlapped with other questions, or questions which did not work, were eliminated. The number of sections covered in each interview, were reduced where possible. Specific sections were added for supplier and customer companies. Questions in the global section were reorganized and reworded to narrow the interpretation taken by the interviewee.

Based on the populations set out above in Table 4.3 and Table 4.4 and in accordance with the author's judgement on how many interviews were required from each sector, the organisations were randomly chosen for interview. An introductory letter with an outline of the issues to be discussed in the interview was posted or faxed to the organisation (see Appendix 3). In the case of the dairy companies, the letter was sent to the Chief Executive, with the exception of one Danish company where the author already had a contact from a previous meeting. For other representative organisations, supplier and customer companies and political or government figures, the letter was directed to the particular individual that the author wished to interview. In most cases the letter was preceded by a telephone call, which helped to identify the correct person and provided an opportunity to explain the study and request an interview. The interview was then set up by telephone call, sometimes taking several telephone calls to speak to the correct individual and arrange an agreeable date, time and location. Generally, a number of interviews were arranged for

the same day; this was especially the case in Denmark, where the interviews were undertaken in three visits during 1997 and early 1998.

At the beginning of the interview, the purpose of the study was explained, the confidentiality of the interviewee's views and participation was stressed and permission was sought to tape-record the interview. Of all the interviews completed, in only one case was permission to use a tape recorder refused. In this case, and in another case where the tape recorder did not work, more detailed notes were taken during the interview; these notes were added to immediately after the interview, while the interviewer's memory was still fresh, and then recorded by the interviewer. In many cases after the interview was completed, a casual conversation would continue about issues raised in the interview. These conversations were often very revealing and notes of valuable points raised by the interviewee were made after the interview where possible. It seemed once the tape recorder was turned off and the official interview complete, some interviewees were more comfortable in revealing what they really thought. Thus a distinction exists between 'formal' and 'informal' answers to questions in interviews with persons in institutions, and the researcher is obliged to balance the evidence in forming an interpretation of the evidence.

The interview process was very rewarding for the interviewer in terms of the quality of data collected, the interest of the participants in the study and the hospitality shown, especially by the Danish participants. It was, however, also a gruelling experience in terms of repeated telephone calls to set up interviews, arranging schedules to co-ordinate interviews and periods of concentrated travelling. It also proved challenging to remain focused and alert, especially when many interviews were scheduled close together during a week or two week period.

#### *4.4.2 Review of Fieldwork*

The actual number of interviews completed, are detailed below in Table 4.5. The number of interviews with management in the dairy processing industry fell short of the original

plan. There are two reasons for this: first, many companies contacted were unwilling to participate, for example Klover Maelk in Denmark, Kerry and Glanbia in Ireland. Second, several companies that did participate did not give access to the 5 management personnel that were sought. For larger companies, they did not wish to spend that much management time on the research; for smaller companies they did not have the various management specialties that were expected. Where there was only access to one or two managers, the author endeavoured to cover as many of the interview topics as possible in the time available. Permitting access to just one or two managers is a means of limiting access and controlling the views and data received by the interviewer. Despite the difficulties with industry interviews, a similar pattern emerged for both industries. A large company in each country gave a number of interviews; a foreign owned company has participated in each country, as well as a smaller company.

**Table 4.5 Interviews Completed**

	Ireland	Denmark	Total	Target
Dairy Processing and Secondary Processing Industries	9	8	17	20
Representative Organisations, Trade Unions, Financial Institutions and Farm Organisations <sup>14</sup>	17	13	30	30
Customers and Suppliers	7	6	13	20
Government and Political	4	4	8	8
Other		1	1	-
Total	37	32	69	78

For the Irish industry, the non-participation by a PLC company was a disappointment and may have hindered the fuller understanding of how the MSR has changed for the PLCs and how they are integrated into the global system. However, the fact that many of the financial, trade union, representative organisations, customers, suppliers and government officials interviewees work very closely with the PLC companies helped an understanding

<sup>14</sup> An additional representative organisation in Ireland did not participate in an interview, but returned a completed interview schedule, which was included in the data analysis.

of these issues and redressed some of the bias that may exist in the industry interviews. Also at the analysis stage, secondary material pertaining to PLC companies, including annual reports and newspaper articles, were reviewed and included. In addition, the author had access to primary material from a previous study (O'Connell *et al* 1997) which included interviews with a number of the PLC dairy companies a year prior to undertaking this study.

A shortfall in interviews with 'customers and suppliers' was also experienced. The main reason for this was difficulty in getting company representatives to agree to an interview. In some cases, company representatives were too busy to agree to an interview and in other cases the potential interviewee did not consider they had enough knowledge of the dairy processing industry to justify an interview. In addition, the highly concentrated nature of Danish food retailing meant that two interviews covered a large proportion of the total market share for Denmark, whereas the author expected four or five interviews would be needed for that level of coverage.

Interviews were requested with individuals; however, in a number of cases, a meeting with more than one person resulted; in three cases meetings resulted with two people and with three people in one case. In these cases answers were generally deferred to the most senior person present, answers tended to be more 'formal' or 'official' and it was more difficult to maintain rapport during the interview. On a positive note, in the group interviews, there was more expertise available to respond on specific issues. Of the multiple interviews, two were in financial organisations, one with a supplier company and one with government officials.

The semi-structured interview is a standard tool used in academic research. Like other tools of methodology, it is designed to be applied in a standard way, with the same questions asked in the same way throughout the fieldwork process. In this study, the interviewer was learning during the interview process; for example, the interviewer's knowledge of the industries' financial links with the global financial system was limited early in the fieldwork, but gradually increased. As well as asking the same standard

questions, more benefit could be derived from improving and refining the direction of the interview as the interviews proceeded. As a result, as the fieldwork proceeded, the interviewer was able to ask more insightful questions and probe more effectively for specific examples. This 'snowball' effect in the interview process improved the effectiveness of the interviews, allowing progress to be made in understanding the issues to be incorporated in the questions and discussions as the process proceeded. In this light, from the researcher's standpoint, the interview process can be viewed as an evolving learning process rather than a static research instrument.

Conducting the interviews in two different countries, one where English is not the mother tongue, posed some special difficulties. Most of the Danish interviewees spoke very good English and responded to questions clearly and concisely; however, there may have been some loss on the subtleties of meaning both in questions and answers. The stresses placed on words, which often gives clues to follow up a particular point can be absent. However, an advantage with the Danish interviewees was their clear attempt to listen to the question and answer in a considered and concise manner, while many of the Irish interviewees spoke at length, some wandering off the point. In a few Danish cases, the respondents lacked the diversity of vocabulary to adequately express themselves and in some instances the specific meaning of the question was not grasped by the interviewee. In one Danish case, an interpreter was used; the result is a limited form of communication. It was more difficult to give and receive non-verbal cues, questions and especially long answers seem also to have been summarised by the interpreter, with the possible loss of valuable information.

A striking feature of some interviews was the 'rapport', which developed, resulting in a really engaging experience. This feature, which is elusive to describe and explain seemed to be related to a reciprocal understanding of the issues being explored, a deeper understanding of the language used and a 'meeting of minds'. In contrast, there were also some interviews, which were difficult, where the interviewee was hostile. Also, in some cases, while the interviewee would begin with a hostile attitude, the interviewee's attitude would relax as the interview proceeded. This perspective on the interview process again

contradicts the view of a structured interview as a methodological tool, which can be applied in a standard manner.

#### **4.5 Secondary Data**

Secondary data was an important component of the data required to answer the research question of this study. Quantitative data was the main focus of the secondary data collection process; this data was important in providing a context for, and enriching the analysis, presentation and discussion of the primary data. The quantitative data also provided a basis to confirm or contradict the interpretation of the primary data.

Several different sources were used for the quantitative data. In connection with the market and competition, the Irish and Danish Dairy Boards data on industry output, sales and exports was especially relevant. Data from company annual reports and analyst reports was important in understanding financial relations. For labour relations, data on employment from census sources and employer organisations was used. Data from company annual reports and analyst reports were helpful in understanding the nature of global links in the respective industries. Also, in the case of global links, qualitative secondary sources such as annual reports and newspaper reports were important in complimenting the primary qualitative data. In relation to industry structural change, data from the respective dairy boards, industry representative organisations, publications from the UK based Milk Marketing Board and EU dairy related publications were important sources. Previous studies of the Irish and Danish industries were also used as data sources where relevant. This was especially appropriate for Chapters 6 and 7 where previous studies of the Irish and Danish industries, both historical and contemporary, were used to analyse the development of both industries. In addition, organisations visited for the interviews were asked for publications and data.

The availability of a considerable amount of secondary data on the Irish and Danish dairy processing industries has been important for this study. The interest of industry representative organisations, milk producers, financial institutions, policy makers at

national and EU levels as well as academics gives rise to the availability of these data sources.

#### 4.6 Data Analysis

Crabtree and Miller (1992) identify four analytical patterns in qualitative data analysis: (1) quasi-statistical, (2) template, (3) editing and (4) immersion crystallisation. In the **quasi-statistical** approaches, analytical techniques are more objective, scientific and standardized; examples could include using frequencies of words or phrases to identify text for more detailed analysis. The template and editing approaches are more commonly used and occupy the middle ground on the continuum between objective scientific approaches and intuitive subjective approaches. In the **template** approach, a codebook is developed based on the research question and similar groups of text are highlighted. In **editing**, the text is cut, pasted and rearranged until a reduced summary reveals the interpretative truth. **Immersion/crystallisation** analysis involves prolonged immersion in the text/data with eventual emergence with an intuitive crystallisation of the text (Cassell and Symon 1994). Template analysis has the advantage of being relatively quick and easy to set up, it can however miss important information if the codebook is produced a priori and the codes developed may the limit scope of interpretation (Crabtree and Miller 1992).

In this study, a combination of template and editing was used in the following way. The taped interviews were transcribed onto Ethnograph V 4.0 software. Each interview was assigned an individual file name, the file name indicated the country and type of organisation of the interviewee (see Appendix 4). Each interview took approximately 3 hours to transcribe onto Ethnograph. The transcribed interviews were printed and coded manually. This involved carefully reading and rereading the transcripts and coding the most relevant parts of the text. The codes were applied to the text using Ethnograph software. The coding system was created based on the MSR, the components of the MSR and the interview schedule. The first two letters of the code refer to the component of the MSR and the remainder of the code refers to the detail of that component being discussed. For example, the code LB-ER, LB refers to the MSR component of labour relations while

ER refers to the detail of that component in employee relations (see Appendix 5 for a full list of codes). In total 71 codes were applied to approximately 920 pages of interview transcripts. Codes were applied throughout the text to relevant comments; for example, if in the section on globalisation the interviewee made a relevant comment on competition, the relevant competition code would be applied. In some cases a number of codes were applied to the same text, for example, text on international competition may also be relevant to global links. In this way, all the relevant text was suitably coded for later analysis. The codes were developed initially in advance of coding the transcripts. However, as the coding process proceeded, new codes were added for issues/points that were not anticipated. This evolving development of the codes assisted in overcoming the limitation of developing a priori codes.

When the coding was completed, a search for all segments for each code was undertaken. The result was sets of segments of text for each code. These sets of segments which were grouped by individual code and parent code (MSR component) were printed. Then began the process of sorting the coding segments. Each section of coded segments was carefully read; where appropriate secondary data was assembled; then the most relevant and important segments were highlighted; lastly an initial chapter draft of the section was prepared. Each section reflected an element of the MSR for that industry. The same process was completed for each section for each of the two industries. Then a number of sections for a chapter were drafted; these were edited and redrafted together. Then all the sections were drafted, further rearranging and integrating of sections was necessary, finally the individual elements of the MSR were reconfigured to develop an integrated MSR.

Secondary data that had been collected was analysed using the Microsoft Excel software package. Various data was entered in the software and analysed to highlight changing trends. Data on industry output, markets, exports, employment, structural change, concentration levels and policy support measures was analysed for both countries. In addition, data collected on foreign investment for the Irish industry and internationalisation of the Danish industry was mapped.

#### 4.7 Validation

An important part of the empirical research process is the validation of the findings. For Cassells and Symon (1994), a study is valid if it examines the topic it claims to examine. However for Schoenberger, validity relates to “how closely results conform to true reality” (Schoenberger 1991, 184). The validation process must check that the results conform to reality. The question then arises as to whose true reality the results must conform to and who is judging the validity. Out of these questions, McDowell (1992) argues that the results from a study are not valid or invalid per se, their validity is contingent on the agreement of others. In qualitative research, the involvement of other people in the validation process is crucial; the study should be valid for a group of people who share a similar world (Cassell and Symon 1994). For this study, that world is the dairy processing industry, nationally in Ireland and Denmark as part of the supra-national EU dairy industry.

Having completed the analysis of the data, identified the form and outcome of the MSR and prepared a draft of the two chapters describing the form and outcome of the MSR, a number of strategies were adopted to validate the findings independently. Of the three approaches to validation in qualitative research: (1) respondent validation (Silverman 2000), (2) the search for deconfirming evidence and (3) triangulation (Crabtree and Miller 1992), the strategy adopted here is a variation on respondent validation and triangulation.

First, a number of validating interviews were completed. Six key issues/statements concerning the dairy industry in Denmark and Ireland were prepared, based on findings of Chapter 8 and Chapter 9 (see Appendix 6). These issues were discussed with 4 experts outside of the dairy industries in Denmark and Ireland, to validate the findings of Chapter 8 and Chapter 9. Experts with a broad perspective on the European dairy industry were chosen (see Appendix 7). The experts were sent the issues by email and 20-minute discussions based on these issues were conducted by telephone. Out of these discussions, a number of points were raised which were reintegrated into Chapter 8 and Chapter 9.

Second, drafts of Chapter 8 and Chapter 9 were sent to two Irish and two Danish experts with a deep knowledge of the respective industries. These experts were asked to read the two chapters and pass on any comments to the author. The purpose of this part of the validation was to check if any major event or issue was omitted or not given sufficient attention. This was particularly important in the case of the Danish industry, where the sources on the industry are more limited.

Third, triangulation<sup>15</sup> of data was adopted. Qualitative data from primary sources were used in conjunction with quantitative data from secondary sources. Data from multiple sources that provide similar findings is a powerful validating process (Baxter and Eyles 1997).

#### **4.8 Data Presentation**

The primary data presented in this study are quotations from interviews. The data are presented authentically as it was transcribed directly from the tapes of the interviews. In some of the Danish interviews, this may result in some lack of clarity due to some unusual phrasing or combination of words. However, it is considered better to present the data in its authentic state, rather than edit it, which could distort its original meaning. At the end of each quotation there is a 2 or 3 letter and 3 number code identifying the country of origin (IRL for Ireland and DK for Denmark) and the identity of the interviewee. Appendix 8 contains a full list of interviewees.

#### **4.9 Conclusion**

In this study, an attempt has been made to develop a methodology to identify the changing form and outcome of an MSR for the dairy processing industry in two countries. There is a significant literature on the regulationist theoretical framework out of which the concept of an MSR has developed (see Chapter 2). However, the same attention has not been given to

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<sup>15</sup>Denzin and Lincoln (1998) identifies four types of triangulation; data, investigator, theory and methodological.

moving from the concept of MSR to actual empirical research, notwithstanding the earlier work referred to by Pritchard, Bowler, Banks and Marsden, Kim and Curry, Glasmeier and Jones and Clark. The approach in this work has been to focus on defining the MSR and then go on to apply the concept empirically in “real regulation” terms. The difficulty in grappling with the MSR and trying to specify it empirically, may be connected to recent trends in moving to lower-level concepts, such as food networks, institutional thickness and rural regimes (see Chapter 2).

Indeed in general in economic geography, there is a much greater emphasis on theory as opposed to methodology. Krugman (1998) notes that much work in economic geography lacks clarity and rigour and refers to “fuzzy notions”. Markusen (1998) highlights that methodological issues are often ignored and analysis is often based on anecdotal or single case studies. In Martin’s view “economic geography may be rich in ideas and concepts but it has also acquired a worrying degree of theoretical and empirical laziness” (Martin 1999b, 389).

There have been calls for more ‘rigour’, especially related to qualitative methods. Baxter and Eyles (1997) highlight the lack of attention to important methodological issues in social geography. Questions such as why and how methods are used?, how are respondents recruited?, and how quotations are selected is often given insufficient attention. Baxter and Eyles put forward four criteria as the basis for evaluating qualitative research: (1) credibility, (2) transferability, (3) dependability and (4) confirmability. Such criteria are important if qualitative evidence is to gain acceptance. These criteria are examined further in the conclusion of this thesis.

## **Chapter 5**

### **The Regulatory Framework for the Dairy Processing Industry**

#### **5.1 Introduction**

In this chapter, the regulatory framework within which the dairy processing and manufacturing industry operates is examined. The regulatory framework consists of mechanisms operating at global, European and national levels. In this chapter, the regulatory framework operating at global level (GATT/WTO) and at European level (CAP) is examined. The frameworks operating at national levels for both the Irish and Danish industry are discussed in the subsequent two chapters. It is more pertinent to include discussion of national level regulation along with an examination of the development of the respective industries. In addition, in this chapter the Irish and Danish dairy processing industries are placed in the broader context of the EU dairy processing industry. The main theme to emerge in this chapter is that while regulation at EU level is of primary importance for the dairy processing industry, there has been an increasing influence of global regulation through the GATT/WTO framework. Out of this liberalising framework, and reduced market intervention by the EU, there has been some move away from institutional regulation to market regulation.

#### **5.2 Uruguay Round of GATT**

The General Agreement on Tariffs and Trade (GATT) was established in 1947 with the aim of reducing trade barriers. Until the Uruguay round of negotiation (1986-93), the focus had been on manufacturing goods with little attention paid to agriculture and food. The Uruguay round, however, resulted in the inclusion of agriculture and food under the agreement for the first time.

An Agreement including agriculture and food was reached on December 1993; it came into effect on July 1, 1995 and will end on June 30, 2001. A new agreement to replace the Uruguay round is currently under negotiation. From an EU dairy point of view, there are 5 important elements to the Agreement: increased market access, reduced

export subsidies, reduced domestic support, sanitary and phytosanitary measures and the peace clause. The main measures relevant to the EU dairy industry are set out below in Table 5.1.

**Table 5.1 Uruguay Round of the GATT Agreement and the EU Dairy Industry**

Element	Measure
Increased market access	All import restrictions converted to tariffs; reduced on average by 36% over 6 years with each individual tariff being reduced by at least 15%.
Reduced export subsidies	Reduction in export support; reduction of 21% in volume over 6 years and reductions of 36% in expenditure over the same period.
Reduced domestic support	Domestic subsidies reduced by 20% over 6 years.
Sanitary and phytosanitary measures	Trade in milk products derived from milk produced using the hormone BST is legitimate.
Peace Clause	Common Agricultural Policy recognised as "legitimate"

Source: Derived from Keane (1995)

### *5.2.1 Implications of Uruguay Round of GATT for the EU Dairy Industry*

From an EU dairy industry perspective, the most important aspects of the agreement are the increased market access for imports and the reduced level of export subsidies which are permitted. The impacts of the Agreement relate to specific products of the dairy industry.

On an individual product basis, the Agreement has the most significant consequences for cheese. Overall, from 1994 to 2001, subsidised cheese exports from the EU must decline by 215,000 tonnes and imports increase by 94,000 tonnes, a net worsening in the EU cheese market of 309,000 tonnes. This is the equivalent of about 6% of total EU consumption (ABN-AMRO 1996, 139). The net effect is that subsidised cheese exports will have to reduce by 14% of production during the period of the Agreement, at a time when world demand for cheese is rising. The problem is acute for cheese because, unlike other dairy products, the quantity of cheese exports has risen since the base reference period (see Table 5.2). The greatest negative impact of the Agreement is on the EU's largest cheese exporting countries, that is France, Denmark and the

Netherlands. The direct effect on the Irish industry is small because most Irish cheese is exported within the EU (to the UK) and is not dependant on export refunds. However, increased competition in cheese markets within the EU, because of reduced export opportunities, could indirectly affect the Irish industry.

For other product areas, such as butter and butter oil, the changes are not as significant because subsidised exports were relatively high in the base period. For example, for SMP (skim milk powder), subsidised exports had already declined by 1992 (see Table 5.2); therefore the impact of the Agreement is not dramatic.

**Table 5.2 EU Dairy Products Subsidised Export Commitments - Uruguay Round  
(000' tonnes)**

Year	Butter and Butter oil	SMP	Cheese	Other Dairy Products
Average subsidised exports 1986-90 (Base)	463	308	386	1188
Average subsidised exports 1991-92	273	264	427	1206
1995	447	297	407	1161
1996	431	286	386	1116
1997	414	276	366	1072
1998	398	265	346	1027
1999	382	254	325	983
2000	366	243	305	938
Overall reduction base to 2000	97	65	122	268

Source: Keane (1995), 50

At a global level, the agreement poses the greatest difficulties for the EU. Greater access for imports and a reduction in subsidised exports (especially in cheese) is expected to increase pressure in the industry for rationalisation, focus on value added products and alliances across nation states and trading blocks (see Table 5.3). In contrast, the Agreement is expected to present opportunities for Australia and New Zealand; the relatively low-cost unsubsidised industries in these countries have the potential to increase production and exports. The Agreement may also facilitate an increase in production and investment in dairy industries in developing countries.

**Table 5.3 Impact of GATT by Region on the World Dairy Market**

Region	GATT Changes	GATT Implications	Dairy Industry Response?
EU	Large reduction in subsidised exports. Increase in imports	Surplus production faces export limits. More competition from imports.	Further rationalisation. Production of more value-added products. More joint ventures and strategic alliances.
North America	Small reduction in subsidised exports. Limited increase in imports	Limited effect on export volumes.	Limited rationalisation; more joint ventures. Stronger trade links to South America. Further international expansion.
Australia/ New Zealand	Limited reduction in subsidised exports	Unaffected due to liberal regime- main beneficiaries of GATT changes.	More investment; more exports, especially in milk and milk powder.
Rest of World	Increased role of developing world in trade through trade liberalisation. Changes phased in over long-term.	Reduced exports from the EU. Supply shortages e.g. cheese. Move to more productive dairying areas.	Price rises for some products. Further investment and increased production.

Source: ABN-AMRO (1996)

Overall, a regulatory system is in place at a global level for agriculture and food. In the initial Agreement, the changes are not significant at a general level because of the selection of the base period. However, the Agreement has set in place a framework that in the long term is likely to see further reductions in the levels of tariffs on agricultural and food products (Keane 1995). More specifically, the Agreement is very significant for the Danish industry because of its reliance on export refunds for exports of cheese outside the EU. It has less importance for the Irish industry, which is not significantly affected by reductions in export refunds for cheese.

### 5.3 European Level Regulation

In an EU context, the single most important regulatory force operating on the dairy processing industry is the Common Agricultural Policy (CAP). In this section, the CAP will be discussed with a specific focus on its impact on the dairy processing industry. Specific impacts for the Irish and Danish dairy industries are highlighted where relevant. The CAP has evolved and changed over its 40 year existence. Initially, the foundation, market organisation framework and development of the CAP is discussed. The CAP as an evolving regulatory framework for the dairy processing industry is then examined more closely.

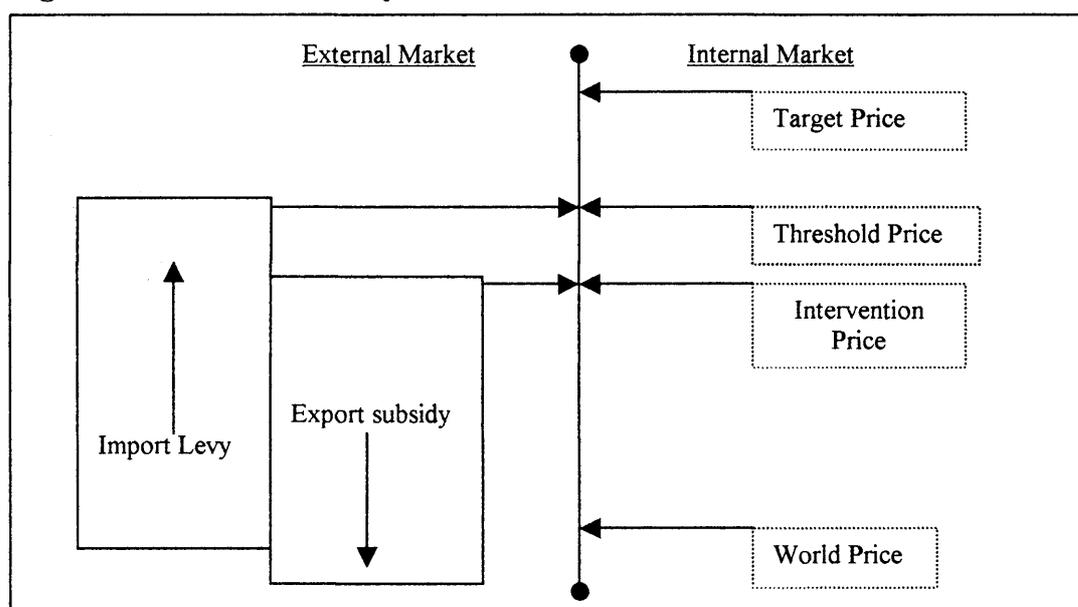
#### 5.3.1 *The Development of the CAP*

In 1957, the Treaty of Rome was signed by the six founding members of the European Economic Community (EEC); the Treaty provided for a common market, which included agriculture. The European Commission then undertook work to formulate a CAP. At the Stresa conference in 1958, the broad principles of the policy were outlined (Tracy 1989, 259). After much negotiation the six basic principles for CAP, which remain fundamentally unchanged to date, were agreed in 1962. These were: a single market area, free internal movement of agricultural products, a uniform external tariff, common prices within the market for the main products, community preference in agricultural trade, and sharing of the financial burden of CAP (Bowler 1985). Nicholls (1978) considered that the formation of a CAP reflected a balance of political forces in the trade off of access of German industry to France in exchange for French access to Germany for agricultural produce.

The principles of the CAP were implemented by establishing a common market first and then common prices. The CAP was based on a system of market intervention coupled with a protective device to insulate the domestic market from the world market. The market system for agricultural (including dairy) products was based on target prices set annually for principal products, defined on a wholesale delivered basis for an agreed geographic area within the EEC. The internal price level was protected from cheaper

imports by applying variable levies to supplies originating outside of EEC (See Fig. 5.1). A 'threshold price' was determined below which a levy is imposed on imports to bring their price up to the target price, taking the extra transport cost into account. A safety net or floor price is provided by the intervention system. Intervention prices are set below target prices. If prices fall to intervention level, then the national intervention agency is obliged to buy up produce from wholesalers including co-operatives. Since milk is perishable, the intervention system operates for butter and skim milk powder, these being the most basic derivatives of milk. To enable EEC producers compete on world market, a system for export restitution was to operate. A subsidy was paid to exporters to make up the difference between the world market price and EEC market price. Subsidies also apply to food ingredients of relevant supported products. This adds to the complexity of the administration of food exporting (Nicholls, 1978). The organisation created for controlling the commodity support system of the CAP is the European Agricultural Guidance and Guarantee Fund (EAGGF or French initials FOEGA). The responsibility for administration of the support system is undertaken by the EAGGF, but most detailed functions are delegated to national intervention agencies (Nicholls 1978).

**Fig 5.1 Model of the CAP System**



Source: Derived from Ritson (1997)

In 1962, variable levies were implemented first for grain, poultry, eggs and pig meat. In 1963, agreement was reached on a market organisation for dairy products as well as beef, veal and rice. In 1966, agreement was reached on arrangements for fruit, vegetables, sugar and oils; wine was added in 1970, hops in 1971 and sheep meat in 1980 (Bowler 1985). The price levels for cereals was agreed in 1964 and implemented for cereals and eggs, top fruit and pig meat in 1967. Common prices were agreed for milk (as well as beef, veal, rice, sugar, oilseeds and some fruit and vegetables) in 1966 and came into force in 1968. By 1968, transitional arrangements were at an end and national support systems were replaced by community support systems with common prices (Tracy 1989). Thus, the common market for the principal agricultural products (excluding wine) had been put in place by 1968.

In setting the initial level of prices for agricultural products, there was a conflict between France - who desired lower prices and West Germany - which wanted higher prices for agricultural products. The result was that prices for cereals, sugar beet and grain-fed livestock were set at levels, which were average for member countries. However, for dairy products, the prices were set at the upper end of the range of national prices and well above the level recommended by the European Commission. The consequences varied, for example France benefited from higher prices for cereals and dairy products, while farmers in West Germany were compensated for the fall in their prices. For dairy products, the setting of high price levels in conjunction with the intervention system provided for unlimited volumes of production, with no mechanism for relating overall supply to demand.

This situation stimulated the production of surpluses, especially of milk, sugar and wheat. The resultant costs of supporting overproduction created pressure to adjust the CAP. The process of realignment began with the 'Mansholt Plan' proposed in 1968. The plan proposed a lowering of prices to reflect the supply-demand situation, the limiting of production by the withdrawal of land, and the slaughter of dairy cows. Also proposed was the reduction in the number of farms and farmers through a long-term structural programme. The reaction from the agricultural industry was hostile; after much debate agreement on diluted proposals was reached in March 1971 and

implemented in 1972. Structural measures to aid farm modernisation, retirement of older farmers, training of farmers and farm workers were adopted. However, the central and difficult issue of the level of price support remained unresolved (Bowler 1985; Tracy 1989).

In 1973, the UK, Denmark and Ireland joined the Community in the first enlargement from the six founding members. By the eve of enlargement, EEC prices remained well above world prices. The stimulus of a protected market coupled with technological progress caused substantial growth in farm output. This was at a time when demand for food was slackening and levels of self-sufficiency rising. Rather than become a net source of revenue as was intended, the CAP became the main outlet for community expenditure. The farm income situation also remained unsatisfactory; farm incomes had risen in real terms, but with the economic boom they had not kept pace with other incomes. Therefore problems remained which were now faced by nine members (Tracy 1989). Of the three new members, Britain was less interested in agriculture than the other two (Ireland and Denmark), who were likely to gain from the CAP. The UK as a major food importer was likely to do less well and was more interested in getting access to and exploiting industrial markets (Fearne, 1991).

On January 1st 1973, Denmark, Ireland and UK became full members and subject to transitional derogations. Negotiations had begun with these countries on 30th June 1970; agreement was reached on all issues within 19 months. The six original members held to two principles in negotiations: new members must accept Treaties and all community legislation, and any problems of adjustment must be solved by transitional arrangements and not by changing existing rules. A five year transition period was agreed, which ended in December 1977. During this period, customs duties between new member states and members were scaled down and tariffs from third countries were adjusted to community tariffs. Arrangements for adjusting price levels to CAP price levels was completed in 1978.

Britain retained access for New Zealand dairy products; it was agreed to reduce the level to 80% of the initial level by 1977 for butter and 20% for cheese (continued access

for New Zealand dairy products was to be a recurring problem in negotiations for the dairy industry). The election of a Labour government in the UK in 1974 led to the UK renegotiating her terms of entry. Among the points renegotiated was an agreement to continue New Zealand butter imports after 1977 to 1980 (Tracy 1989). Negotiations with Ireland and Denmark led to no special difficulties over agriculture. Both hoped to gain from access to the Community for their agricultural exports, especially Ireland which needed to diversify its agriculture, as it was very dependent on the UK. Denmark did not need a transitional period but accepted it in view of the UK's difficulties (Tracy 1989).

After 1973 there was also a more turbulent economic climate: the oil crises caused inflation, unemployment, recession and monetary instability. Steep inflation caused sharp increases in agricultural prices, which created a habit that was difficult to break later when inflation rates were much lower. Meanwhile, farm productivity continued to grow while demand grew relatively little. Therefore, self-sufficiency in the principal agricultural products grew in the Community. The cost of the CAP also increased as expenditure on export subsidies, intervention and the disposal of surplus increased (Tracy 1989).

After the admission of the three new members, the reappraisal of the CAP continued with reports by the Commission in 1973 and 1975. Guaranteed prices remained central to the CAP, but recommendations on eliminating differences in Monetary Compensatory Amounts (MCAs), and the implementation of 'less favoured areas' directives, were made (Bowler 1985). In the mid-1970s efforts were made to implement a more prudent price policy as the influence of the consumer grew. However, high levels of inflation led to farmers' demands that farm prices keep pace. Nicholls (1978) noted that despite the completion of the transition period, many non-tariff barriers remained; these included: tax and legal differences, differences relating to trade marks, patents, accounting practices, tax structures, VAT rates, trade union structures, works councils, labour requirements and the law.

Dissatisfaction with the costs of maintaining the CAP mounted in the late 1970s. The costs arose from maintaining the intervention system in a period of high price levels and from mechanisms (e.g. MCAs) aimed at maintaining common prices during a period of financial instability among community members. Also, regional variations in farm income were not reduced. The dairy sector was subjected to measures limiting production of milk and subsidising the price of dairy products to specific groups in society. Also, on the broader front, the CAP was realigned so as to improve the incomes of producers in the southern parts of the Community. This was due to the pending accession of Greece in 1981 and Spain and Portugal in 1983 (Tracy 1989).

In the early 1980s, continuing concern with the level of expenditure under the CAP (in particular the UK's dissatisfaction with its net contribution to the Community) led to further changes to the CAP. Attempts were made to control the annual price increases negotiated by the Council of Ministers. However, in the late 1970s and early 1980s, CAP expenditure increased rapidly and expenditure on market support measures for milk accounted for a significant proportion of expenditure (see Table 5.4). Out of this situation<sup>16</sup>, milk quotas were introduced and severe restrictions placed on the use of intervention for dairy products.

The, by now, European Union (EU) was under pressure in the early 1990s from its GATT partners to reduce subsidised agricultural exports onto world markets. Internally, the EU needed to address budgetary problems caused by soaring export refund expenditures and the large increases of beef in intervention (Hubbard and Ritson 1997). Out of these pressures, Agricultural Commissioner Ray MacSharry proposed reform of the CAP. Eventual agreement was reached in May 1992 on what became known as the 'MacSharry Reforms'. It resulted in substantial price reductions, especially in the cereal sector bringing them close to world price levels, combined with direct payments which were devised to favour smaller farmers. In addition measures to reduce the intensity of land use were introduced, compensated by direct payments (Hubbard and Ritson 1997).

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<sup>16</sup> The specific changes to the regulatory framework for milk and dairy products are discussed in more detail in the next section.

While the agreement represented a shift in policy from price support to direct income support for producers, it had little impact on the dairy sector. The original MacSharry proposal included a price reduction of 15% in the support price for butter, a 5% reduction for SMP, and a 4% reduction in producer quotas. However, the eventual outcome was relatively mild, involving a 2.5% support price reduction for butter, in 1993/94 and 1994/5, and a 1% quota reduction (Keane, 1995). In addition the co-responsibility levy, introduced in 1977, was abolished.

Further pressures for reform of the CAP emerged in the late 1990s. Internally in the EU, the level of prices remained too high to compete on the world market, the problems of inequity arising from CAP support had only been partly addressed in the 1992 reform, and the CAP regime had grown too complex and bureaucratic. Externally, pending expansion of the Union to Eastern Europe, and upcoming negotiations on agricultural support in the WTO talks, also increased the pressure for reform and liberalisation of the CAP regime (European Commission 1998). Out of these pressures for reform, an agreement was reached in March 1999, known as the 'Berlin Agreement'. Overall, the Berlin Agreement represented a continuation of the reform process set in train in the MacSharry reform of 1992. Market support prices of beef and cereals were reduced, with compensation by way of direct payments to producers. In the dairy sector, reform was somewhat long term; price cuts of 15% are due in three steps beginning in 2005, with compensation through direct payments to producers, and milk quotas are to stay in place until 2006. However, milk quotas were increased by 1.5% for EU members to take effect in 2005, while Ireland gained a specific quota increase of 2.86%, which comes into effect in 2000/01 and 2001/02<sup>17</sup> (Donnellan *et al* 1999).

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<sup>17</sup> Spain, Greece, Italy and Northern Ireland also gained specific quota increases.

**Table 5.4 Budgetary Cost of EU Market Support for Milk Products  
1972-1998**

Million Ecu	1972	1975	1980	1985	1990	1995	1998
Total EU Budget				28100.1	44378.9	66757.7	81433.6
EAGGF Guarantee	2258.2	3887.8	11314.9	19744.2	26453	34502.7	40437
EAGGF Guarantee as % EU budget				70.3	59.6	51.7	49.7
Milk Total	573.7	1152.9	4752	5933.2	4971.7	4028.7	2976
Milk as % EAGGF	25.4	29.7	42.0	30.1	18.8	11.7	7.4

Source: Commission of European Community (1975-1997).

An underlying feature of the CAP throughout its history has been its budgetary problems. Agriculture had taken up a significant proportion of Community expenditure and, until the mid-1980s, milk and dairy products accounted for a significant proportion of that agricultural budget. However, overall the dairy sector accounts for a declining proportion of the total agricultural budget (see Table 5.4 above). Of the dairy budget, export refunds still account for nearly half of the dairy sector. In recent times there has been far less spent on intervention, with an increasing reliance on internal market disposal schemes, such as the subsidisation of butter for the manufacturing industry.

### *5.3.2 Regulatory Context for the Dairy Processing Industry*

The regulatory context for the dairy processing industry has evolved significantly since the establishment of the common market for milk and dairy products in 1968 (see Table 5.5). The early system for market organisation made increasing production attractive both for the producer and the primary processor. Since then, various measures have been employed to try to control and reduce the production of milk and dairy products and to make it less attractive for processors to use the intervention system.

In response to the rising costs and levels of production, a 'co-responsibility levy' on deliveries to dairies and processors was introduced in 1977. The levy was initially 1.5% and then varied from 0.5% to 3%. Mountain areas were exempted and less favoured areas paid a lower rate. The proceeds were used to promote the sale of dairy

products and producer representatives had an input in the use of this money. Tracy (1989) considered that the disincentive effect of the co-responsibility levy was offset by price increases.

Surplus production of agricultural products, combined with the budget cost of supporting prices for these products, however, continued the pressure for reform of the CAP, especially for dairy products. By December 1980, the Commission concluded that "in the present state of agricultural technology, it is neither economically sound or financially feasible to guarantee price or aid levels for unlimited quantities". The cost of market support in the Guarantee section of EAGGF was such that spending threatened to exceed the budgetary resources of the Community. Total spending in the Guarantee section of EAGGF increased from 11.1 billion ECU in 1981 to 15.9 billion in 1983 and to 18.4 in 1984. The cost of market support for dairy products increased from 3.3 billion ECU in 1982 to 5.8 billion in 1984 (Petit *et al* 1987).

Between 1980 and 1982 attempts by the Commission to impose a super levy to cover the rising costs of support were rejected by the Council of Ministers. However, in 1982 agreement was reached on a 'guarantee threshold'; that is, if milk deliveries exceeded those of the previous year by a certain amount, an appropriate reduction in intervention prices would be introduced. In 1982, for example, milk production rose by 3% more than the 0.5% allowed; therefore, the milk price was decreased by this amount. However, because of a milk price increase of 5.5% overall, a net price increase accrued. Subsequent developments in prices and market organisation for dairy products are discussed under the headings of 'milk quotas' and 'intervention and disposal'.

**Table 5.5 EEC/EU Regulatory Developments for the Dairy Processing Industry**

Date	Measure(s)
1968	Common Market Organisation system established for milk including intervention, export refunds, import levies, and disposal measures for skim milk and skim milk powder.
1977	Co-responsibility levy of 3% of the milk price applied to milk producers.
1981	Aid measures to encourage disposal of butter through non-profit bodies, social welfare recipients and armed forces introduced.
1984	Milk Quotas introduced.
1987-1989	Milk quotas reduced by 2% (87/88) and 1% (88/89). Temporary quota cessation scheme introduced in 1987, reducing quotas by 4% (87/88), 5.5% (88/89) and 4.5% (89-92).
1987	Intervention outlet for butter and SMP made less attractive. Quantities limited, tendering system (at 90% of intervention price) and payment delays introduced. Intervention prices for butter and SMP effectively frozen (see Table 5.6).
1988	Extension of aid for disposal measures for butterfats to manufacturers of pastry products ice cream and other foodstuffs.
1992	Under Mc Sharry agreement, support prices for butter cut by 5% (1993-95) and milk quotas cut by 1%.
1993	Co-responsibility levy abolished, programme for promotion of dairy products established in its place.
1995	Uruguay round GATT agreement commitments take effect.
1995-98	No further price adjustments made to intervention products; butter and SMP.
1999	Under Berlin Agreement, prices to fall by 15% in 2005, quotas to increase by 1.5% in 2005, with special increases for Italy, Greece, Spain, Northern Ireland and the Republic of Ireland starting in 2000.

Source: Developed from Commission of the EC 1993, National Dairy Council (1999)

### 5.3.2.1 Milk Quotas

The threshold level of production was likely to be exceeded by 6% in 1983, resulting in a 12% decrease in milk price. The price cut would have led to a serious and immediate impact on producers' incomes and the impact on production would only be felt after some delay. Many member states accepted quotas in fear of the possibility of a system that would be more penal to large producers (Petit *et al* 1987). A quota system was proposed by the Commission and agreed by the Council of Ministers in March 1984 for a five year term. The overall level of delivery quotas was set at the 1981 level plus 1%, with a special reserve given to Ireland, Northern Ireland and Luxembourg. This set the

total at 99,359,000 tonnes of milk, as compared with actual deliveries in 1983 of 103,572,000 tonnes in the Community (Tracy 1989). The scheme could apply to individual producers (with a penalty of 75% of milk target price for overproduction) or to dairies (penalty 100% of target price for overproduction). With the latter option surpluses could be set against deficits within a dairy. Tracy (1989) deemed this to be a weakness of the scheme rather than the more effective option of quotas applying to individual producers only. The introduction of Article 4a by the Council of Ministers further weakened the scheme in Tracy's view; it permitted member states to allocate unused quotas to producers or purchasers in the same or another region.

In the first year of quotas, supplies stayed within quotas, then loopholes were discovered, such as reallocation, and producers risked exceeding their quotas. The surplus problem grew; in 1986 there was an estimated surplus of 9.6 million tonnes of milk. The Council agreed in 1986 to cut quotas by 3% over two years and also introduced a cessation scheme for producers to give up milk production. It was also agreed to suspend an additional 5.5% of quota subject to compensation to producers. The penalty for excess for individual producers was raised to 100% of the milk target price. The scope for reallocation of unused quotas to other producers was also reduced for dairies.

The quota system was introduced initially for five years, but in 1988 was extended to 1992 and later extended to 2000. Under the recently agreed Berlin agreement of Agenda 2000, quotas have been extended subject to review in 2003. Quota increases of 1.5% will apply in 2005, with special increases for five countries (see Table 5.5) to take effect in 2000. The cumulative effect of the introduction of quotas and cuts has varied at a national level (see Table 5.6). As a result, since 1985, Danish milk production has declined by more than 10%, the Netherlands by over 11% and the UK by over 17%. In contrast, Ireland's production has only declined by 5.4%. The small cutback in Ireland is attributed to the effectiveness of the Irish political lobby, where dairy farming is proportionately more important to the economy than for other countries (ABN-AMRO 1996).

**Table 5.6 EU (15) Milk Quotas and Milk Production Change**

Country	EU Milk Quota 1996*	% of Total milk quota	% Change milk production 1984-1995
Belgium	3110	2.8	-11.6
Denmark	4455	3.8	-10.7
Germany	27865	23.7	-12.4
-of which ex GDR	6253	5.3	--
Greece	631	.5	-3.4
Spain	5567	4.7	-10.0
France	24236	20.6	-8.3
Ireland	5246	4.4	-5.4
Italy	9930	8.5	-6.1
Luxembourg	269	.23	-10.0
Netherlands	11075	9.4	-11.6
Austria	2749	2.3	-16.5
Portugal	1872	1.6	+47.7
Finland	2394	2.0	-23.4
Sweden	3303	2.8	-12.4
UK	14590	12.4	-17.5
EU 15 Total	117493	100	-6.5

Source: European Commission 1997, 1, 39. \*'000 tonnes

### 5.3.2.2 *Intervention and Disposal*

Under the common market organisation for dairy products, national agencies were obliged to buy butter and skim milk powder when prices fell below the intervention level price. As the target price for milk increased in the 1970s and early 1980s so also did the intervention prices (see Table 5.7). Intervention became an increasingly used outlet for milk production; as a result stocks of butter and skim powder grew. Intervention at this stage was an open-ended commitment to purchase butter and skim milk powder at the intervention price. The farmer was dependent on the price guarantee being passed on by the processor; a nominal processing margin was included in the intervention price, but dairies were free to negotiate with farmers their actual purchase price for milk. This put first stage processors at an advantage: they had a

guaranteed and unlimited outlet for their produce with a known price with a built in processor's margin. As a result investment was encouraged, particularly for skim milk powder processing in the dairy industry (Swinbank and Harris, 1991). This situation presented a problem for the dairy processing industry of whether or not to undertake risky capital investment in butter and SMP processing facilities. Co-operatives, because of their ownership structure, were more likely to undertake this investment. First stage dairy processors benefited from the growth in CAP support of milk production in the 1970s. This created overcapacity problems for the industry when milk quotas cut the available supply of milk and intervention was made less attractive. However, on the other hand, by the late 1980s some processors reported a milk shortage. All processors had been similarly affected by quota cuts, but those producing product with buoyant demand or selling into profitable export markets regretted the quotas, which limited their throughput (Swinbank and Harris 1991).

By the end of 1986 stocks of intervention dairy products were at very high levels; stocks of butter stood at 1.4 million tonnes and skim milk powder at 0.8 million tonnes. For example, in 1987 stock levels of butter and SMP had reached 85% and 45% respectively of total Community demand. One million tonnes of butter were sold off in 1987 and 1988 to reduce the stocks. To help counter the problem of growing stocks, new restrictions were placed on sales into intervention. It was agreed in March 1987 that, after 1st March in any year, if 180,000 tonnes of butter has been sold into intervention, permanent intervention would be replaced by system of intervention by tender. This would give greater control to the Commission over prices and quantities. The selling of skim milk powder into intervention was limited to the period from March 1 to August 31 and to 100,000 tonnes. This was a significant change for the dairy industry; intervention was no longer readily available for surplus products.

**Table 5.7 Intervention Prices (ECU per 100Kg) in the Milk Sector 1975-1996**

Year <sup>18</sup>	1975	1978	1981	1984	1987	1990	1993	1996 <sup>19</sup>
Butter	209.8	235.7	291.6	357.9	313.2	300.8	292.8	328.2
Skimmed Milk Powder	88.7	94.09	121.5	149.6	174.0	174.04	172.4	205.52

Source: European Commission (1997)

However, some countries made more use of intervention than others. For example Ireland accounts for about 5% of EU milk output; it has however accounted for 10-15% of all dairy intervention on average since EU membership in 1973. In the most recent period of major intervention purchases in 1990/91, Ireland accounted for about one third of total intervention sales (Keane 1995).

Recently, intervention stocks have been at much lower levels than those, which existed in the 1980s and early 1990s. Intervention proved to be politically unpopular as it led to the build-up of large stocks of food products. As a result, the Community has moved away from intervention toward a less visible form of support to handle excess supplies of dairy commodities. Subsidies were paid to milk processors for the use of skim milk powder (SMP) in animal feed and in casein production. Subsidies were provided to promote school milk consumption and to increase the consumption of butter. Butter disposal schemes included a consumer subsidy payable on all butter consumption, 75% paid by FOEGA. In Tracy's (1989) view, these measures were expensive for the results achieved.

Subsidised consumption (referred to as disposal measures) has become a significant part of the market support system for dairy products. According to the Commission:

*“although the current situation on the market for milk and milk products seems fairly balanced, this stability is still fragile, and cloaks a structural surplus which consistently requires large scale*

<sup>18</sup> Prices at year end.

<sup>19</sup> From 1/2/95 switchover to new agrimonetary system, switchover (1.207509) co-efficient abolished.

*intervention (including disposal measures for quite significant volumes)."* (European Commission 1997, 38)

Subsidised consumption of butter rose from 12.7% of total EU domestic use in 1980 to 29.2% by 1996. The subsidy is equivalent to approximately one third of the market price and sales to food processors made up the majority (85% in 1995) of subsidised butter sales. Subsidised use of skimmed milk powder is also an important aspect of the support system. It accounts for 15-20% of EU domestic use; it was over 20% in the early 1980s, but by 1996 accounted for 14% of domestic use (European Commission 1997). Casein production accounts for the majority of the use of subsidised skim milk and processors in Ireland have taken particular advantage of this subsidy in becoming relatively large casein producers (see Table 5.8). On the other hand, while Ireland has made great use of casein aid, Denmark has utilised export refunds to a greater extent. In particular, export funds were used in the late 1980s and early 1990s to fund exports of fêta cheese to the Middle East (see Table 5.9). Export refunds on cheese were very limited after 1995 due to the implementation of the Uruguay round of GATT (see section 5.2 above).

**Table 5.8 EU Aid for Casein 1983-1993**

Million ECU	1983	1984	1986	1987	1990	1993
Ireland	59	66	125	126	79	97
Ireland as % EU (12)	19.5	17.6	22.8	21.7	26.8	28.9
Denmark	26	38	66	64	37	39
Denmark as % EU (12)	8.6	10.2	12.0	11.0	12.5	11.6
Total EU (12)	303	374	548	580	295	336

Source: MMB (1978-1994)

**Table 5.9 EU Export Refunds 1983-1993**

Million ECU	1983	1984	1986	1987	1990	1993
Ireland	75	128	133	109	90	114
Ireland as % EU (12)	5.7	6.6	6.2	4.8	4.7	5.0
Denmark	189	290	281	311	305	334
Denmark as % EU (12)	14.2	14.9	13.0	13.8	15.8	14.6
Total EU 12	1327	1943	2155	2258	1931	2287

Source: MMB (1978-1994)

Changes made to the intervention system have remained in force since first introduced in 1987. The reduction in milk deliveries through the quota system, together with the restrictions on the intervention and the sell off of stocks of butter, had reduced the previously very high levels of stocks in intervention stores.

### *5.3.2.3 Administration and Policy Process*

The development and evolution of the CAP has resulted in a complex system of support for many agricultural products, including dairy products. In addition to the actual policy instruments used to support dairying, the administration and decision making process is also important. It provides the administrative context in which the industry has to operate in the EU and sets the framework for the policy process.

The CAP policies for milk are administered by and through the dairy processing and manufacturing industry. However, because of the manner in which agricultural products are defined, the responsibility for the dairy industry is split between two divisions in the EU. Articles 38 to 46 of the Treaty of Rome define agricultural products as 'the products of the soil, of stock farming, and of fisheries and products of first stage processing directly related to these products'. The list of items covered by this definition is in Annex 11 of the Treaty. Annex 11 products are the responsibility of Directorate General VI while non-Annex 11 products are dealt with by the less well resourced foodstuffs division of DG III (Division B/2 of DG III) for Internal market and Industrial Affairs. Therefore, the EC's dairy processing, as well as its food industry responsibilities, are split between two DGs and Commissioners. Director General VI

is regarded as the DG for agriculture. As a result, the industry claims it is not well represented and little attention is paid to its interests (Harris and Swinbank 1997).

The detailed management of the dairy industry, for example the variations in levies and subsidies, has a direct impact on the dairy industry. From the industry perspective, the Commission is preoccupied with managing markets for bulk CAP commodities, whereas the food industry concern is with the development of markets for manufactured food products. The interests of the industry and the Commission, therefore, can often diverge (Swinbank and Harris 1991). First stage processors and farmers tend to share an interest in higher prices for milk. On the other hand, second stage processors have little influence over raw material, whereas their output is placed in a highly competitive environment. They are, therefore, caught between the rigidities of CAP supported raw materials and pressures from retailers. However, with the ongoing concentration in the dairy sector, the distinction between first and second stage processors is less clear. Many dairy companies, for example Kerry Foods in Ireland and MD Foods in Denmark, are involved in food ingredients (bulk products) and consumer branded products.

Processors removed from the producer level can also be affected by CAP policies. The CAP sets the price for the raw materials, for example an input such as milk powder has to be purchased at EU supported prices. Many of the ingredients are available only at EU prices; industries then have to be protected from manufacturers with access to lower priced raw materials outside of the EU. The protective mechanism of CAP import levies are, therefore, applied to imported processed foodstuffs. Arrangements for administering this are complex, involving a three monthly review of the import levy for each qualifying food product (Swinbank and Harris 1991).

The routine implementation of policies is left to the Commission in conjunction with respective government authorities in each member state. The Commission is aided by management committees; one exists for each commodity supported by the CAP. The Committees meet weekly; members are drawn from national ministries and related agencies. The Committees' decision are not binding but are important in keeping the

Commission in touch with industry and market developments (Fearne 1991). Levels of export refunds are set by the Commission and take account of such factors as the supply-demand balance, cost to the budget, political pressures from importing countries and, more recently, GATT limits on export refunds. Individual firms have a strong interest in these issues and lobby the Commission through their national governments.

The complexity of the CAP as it applies to dairying necessitates a detailed knowledge of the system by the industry. Many day-to-day decisions, for example on the levels of supports under different disposal schemes and the level of export refunds, have significant financial and management implications for the dairy processing industry. It is important for the industry to keep up to date and be in a position to lobby and influence decisions that are taken. Lobbying contacts through national and EU channels are important points of contact at the administrative level in the EU.

#### **5.4 The European Dairy Industry**

The European dairy industry is outlined here, prior to a detailed analysis of the development of the Irish and Danish industries in Chapters 6 and 7. The European industry is placed in its global context in terms of production, trade and the scale of the largest companies. In addition, trends in structural change, output and producer prices are examined.

In a global context, the European dairy industry is a significant player; in 1997, of the 471 million tonnes of milk produced globally, Western Europe accounted for 126.8 million tonnes, followed by 87.5 million tonnes from North America (see Table 5.10). The EU accounts for the largest proportion of trade in dairy products in the world. In 1996, the EU accounted for 50% of the world's dairy trade, down from 56% in 1990. The decline in the EU share is due to an increasing share of trade held by New Zealand and Australia; contributing to this is a slight fall in EU milk supply that is counteracted by rapid increases in Oceania. However, intra-EU trade accounts for a substantial proportion of the EU's trade: 76% in cheese, 73% in butter and 69% in SMP (ABN AMRO 1996). The vast majority of the world's dairy trade is subject to government

intervention to protect national dairy industries, most notably in Europe, North America, India, Japan, Brazil and China. The main exception to this is Australia and New Zealand, who operate an almost free-market dairy regime. However, since 1995 trade in dairy products has been also regulated through the GATT/WTO organisation (see section 5.2 above).

**Table 5.10 World Cow's Milk Production, 1997 (million tonnes)**

Region	1997
North America	87.5
South America	33.5
Asia	49.7
West Europe	126.8
C.E.E.C.	33.9
C.I.S.	52.6
Oceania	20.1

Source: IDF (1998)

In the EU, there are around 6,000 milk processors in total and co-operative ownership is a significant feature of the industry (see Tables 5.11 and 5.13). Of the large EU dairy companies, Nestlé has a significant global presence, accounting for an 11% share of the world dairy market, with Danone accounting for 6% and Besneir 5%. The larger companies tend to be diversified and generate less than 33% of their sales from dairy products; for example Nestlé has 27% and Danone 19% of sales. However, apart from these, the remainder of the larger companies are highly dependent on dairying (see Table 5.11). The larger diversified dairy companies, with more of a focus on value added, have higher levels of profitability than the specialised dairy companies, many with a focus on commodity products. For example, the dairy operating margin in 1994 for Nestlé was 9.3%, compared to 5.05% for MD Foods and 5.21% for Kerry.

**Table 5.11 Largest EU Milk Processors Ranked by Volume of Milk Processed, 1996**

Milk Processor (Country of Origin)	Ownership	Dairy as % Group Sales (1994)	Group Staff	Number of Dairy Factories	Dairy Operating Margin 1994 (%)
Besnier (Fr)	Private	93.8	12,000	70	5.56
Campina Melkunie (NL)	Co-operative	100	6,800	28	0.84
Nestlé (Switz)	Private	25.1	209,760	180	9.30
MD Foods (DK)	Co-operative	100	6,080	49	5.05
Coberco (NL)	Co-operative	81.8	3920	22	1.32
Parmalat (IT)	Private	77.6	13,720	60	8.18
Sodiaal (Fr)	Co-operative	100	6,620	33	4.70
Danone (Fr)	Private	29.5	56,420	64	9.64
Arla (Swe)	Co-operative	88	5,830	31	1.74
Friesland Dairy Foods (NL)	Co-operative	100	5,580	18	4.04

Source: ABN AMRO (1996)

Most of the larger EU dairy companies have internationalised and have a significant presence outside Europe. For example, of total group sales, Parmalat derives 42% of sales from outside Europe, with 55% for Nestlé, 31% for MD Foods, and 8% for Danone (ABN AMRO 1996, 12). There has been a noticeable increase in internationalisation activity by European dairy companies since the early 1990s. The major retail chains dominate dairy product sales throughout Europe. While co-operatively owned retailers have played a prominent role in retailing in Europe, their market share has been shrinking to the advantage of large multiple retailers (see Chapter 3.7 for further discussion on retail concentration). The principal output of the EU dairy industry is butter, cheese and fresh milk products (see Table 5.12). Since the early 1970s, there has been a decline in the production of butter; this is especially noticeable since 1984. Meanwhile, production of cheese has increased significantly in the same period. These trends are closely linked to changing demand patterns and the less attractive policy measures for the production of butter.

**Table 5.12 Use of Whole Milk in EU Dairies, 1973-1996**

Product	% of total 1973	% of total 1984	% of total 1996
Butter	46.2	43.8	32.3
Cheese	21.0	24.5	30.6
Fresh Products	20.6	17.5	20.7
Cream	5.3	6.3	9.1
Concentrated Milk	3.5	2.7	1.9
Whole Milk Powder	2.7	4.9	4.9
Other	.8	.3	.5
Total	100.0	100.0	100.0

Source: European Commission (1997)

There has been considerable structural concentration in the EU dairy processing industry during the last three decades (see Table 5.13). According to (ABN AMRO 1996), the number of dairy enterprises in the EU had declined by 25% between 1986 and 1996. Large dairies located in Germany, France, UK and Netherlands account for a significant proportion of the processing of EU milk. A large number of smaller dairies are more important in Greece, Spain, Italy and Portugal. The absolute decline in enterprises is especially noticeable in Italy, Germany and France. In the smaller countries, the decline is also significant; for example, the number of dairies in the Netherlands declined from 93 to 19 between 1973 and 1994. A similar dramatic decline is apparent for Denmark - from 324 to 42. In terms of scale, by 1994, the Dutch industry emerged as the most concentrated, while Italy, Greece and Spain remained least concentrated. There has been significant structural development of the industry since 1973. The number of dairies has fallen and the average milk intake has increased. The industry is particularly concentrated in Denmark and the Netherlands. Average intake has increased in Denmark, from 14,000 to 105,500 tonnes per annum.

**Table 5.13 EU Dairies 1973-1994**

	1994		1982		1973	
	No. of Dairies	Avg / Dairy* (000t)	No. of Dairies	Avg / Dairy* (000t)	No. of Dairies	Avg / Dairy* (000t)
Germany	284	91.7	546	43.4	782	24
France	815	29.1	1497	17.3	2003	10.6
Italy	2182	4.5	3115	2.5	4133	2.4
Netherlands	19	552.4	49	252.6	93	95.6
Belgium	86	33.9	71	43.6	94	28.9
Luxemburg	1	252	2	122.4	2	113
UK	N/a	N/a	374	44	515	26.6
Ireland	71	74.2	93	53.2	118	26.7
Denmark	42	105.5	167	30.0	324	14
Greece	1010	1.2	--	--	--	--
Spain	836	5.3	--	--	--	--
Portugal	113	12.8	--	--	--	--
EC (12), (9)	N/a	N/a	5914	16.8	8064	10.3

Source: European Commission (1997). \* throughput of milk

Comparing milk prices for producers is complicated by varying composition, currency, VAT rates and transport costs. However, estimates throw some light on the relative levels paid by companies in the different member states. Danish companies consistently pay producers the best price for milk, while those in France and Ireland tend to pay lower prices (see Table 5.14). In the past, Ireland has experienced the lowest prices but this has improved in recent years. The low price levels in Ireland can be explained by the low level of butterfat. French companies, which paid the highest price in the late 1970s, had slipped to last place by the mid-1990s. The higher milk price may indicate a more efficient industry; however, different ownership structures may dictate the importance of paying producers a high price as against maximising corporate profits (ABN AMRO 1996).

**Table 5.14 Producer Milk Prices as a Percentage of the Target Price, 1986-1995**

Country	1986	1989	1992	1995
Belgium	90.8	100.4	91.5	91.0
Denmark	101.5	109.2	105.3	99.0
France	89.7	93.8	93.0	95.0
Germany	94.5	107.3	100.1	93.0
Ireland	90.8	101.1	92.9	96.0
Netherlands	93.8	104.2	101.6	98.0
UK	89.8	95.2	90.2	98.0

Source: ABN AMRO (1996, 45)

The European dairy industry is a combination of many national industries that vary widely in structure. While the European industry shares a common market and regulatory system, there are wide variations in structure, concentration and prices paid to the producer. In terms of structure and concentration, a north-south divide is evident, with a concentrated, large-scale structure evident in Northern Europe, whereas a dispersed, small scale structure exists in the Mediterranean countries, such as Greece, Italy and Spain.

## 5.5 Conclusion

Regulation of the dairy industry in Europe has evolved from the national to the regional to the global level. National regulation dominated until the late 1960s when the CAP came into operation, and until 1972 for Ireland and Denmark until they joined the EEC. The common market organisation system for dairy products was a powerful influence on the industry, especially in countries such as Ireland and Denmark where there was a strong export orientation. While EU-level regulation continues to be of primary importance, global regulation through GATT/WTO has begun to become significant. The global regulatory framework has liberalised, and continues to seek to liberalise trade. However, the detail of the specific impact on individual products has determined the impact of the recent Agreement; for instance, Denmark was more severely affected by GATT due to its reliance on cheese exports. On the other hand, Ireland, with a high reliance on butter and SMP exports, was relatively unaffected.

Out of the liberalising GATT/WTO framework, and the less interventionist dairy CAP regime, there has been some shift from institutional regulation to market regulation. While there continues to be significant institutional regulation in the EU through quotas, disposal measures and export refunds, the reduction in resources allocated to dairy market regulation in an expanding EU is evidence of this move away from institutional regulation. Drawing from the experience of the Japanese beef industry, trade liberalisation can lead to greater mobility of capital and increasing multiple sourcing strategies, direct foreign investment and trade between subsidiaries of trans-national corporations (Ufkes 1993).

Negotiations are currently underway for a new WTO agreement. Continued liberalisation of trade is expected; while further limitations on export subsidies and increased market access for imports are anticipated. This will expose the EU dairy industry to greater global competition, while limiting the possibilities for supporting exports through subsidies. Since the EU dairy industry's main competitors in exports (New Zealand, Australia and Argentina) operate without market supports or supply controls, the EU dairy industry will be under increasing pressure in maintaining or developing markets outside the EU.

## **Chapter 6**

### **The Irish Dairy Processing Industry**

#### **6.1 Introduction**

Having set the dairy processing industry in its regulatory and European context, the Irish industry and its changing structure is now examined more closely using secondary source materials. This chapter also forms the basis for identifying the elements comprising the MSR relevant to the Irish dairy processing industry. The development of the Irish industry is analysed by examining the industry in four distinctive phases. First, the development phase up to the 1920s, in which the industry grew rapidly in a very competitive environment. Second, a phase of stagnation from the 1920s to the 1950s facilitated by international depression, protectionist (domestic) economic policies and a conservative dairy processing industry. Third, a period of renewed growth and reorganisation for the industry as Ireland transformed its economic policy and as the industry prepared for, and benefited from, membership of the EEC. Foreign-based food companies became involved in the industry, especially in secondary processing. Fourth, from the mid-1980s to date, a phase of further reorganisation has taken place as the larger Irish processors have internationalised their operations and several have changed from wholly owned co-operatives to public listed companies.

#### **6.2 Early Development 1880-1920**

The Irish dairy industry has its origins in farm-produced, heavily salted butter, which was one of Ireland's main exports until the late 19th century. A commercial network developed around this trade that included farmers, butter merchants and the famous Cork butter market. In the late 18<sup>th</sup>, and for much of the 19th century, Ireland was a significant exporter of farm-produced butter. Britain was the principal outlet for this product and in the early 1870s annual exports to Britain amounted to 600,000 tons (O'Grada 1977).

The invention and widespread use of the centrifugal separator<sup>20</sup> was to bring about the industrialisation of the dairy industry; butter production changed from a farm to a creamery or factory-based system and led to the development of a dairy processing industry. The centrifugal separator resulted in much higher yields of cream than traditional manual separation methods; also the resulting product -'creamery butter'- was essentially a new product. Ireland's European competitors, most notably Denmark, quickly adapted to the new production system based on the centrifugal separator and gained a large share of the British market with their fresh, lightly flavoured butter. Ireland was slower to adapt to the new situation than its competitors, resulting in a loss of market share to creamery butter. The market share of Irish butter placed on the London market declined from 39.6% of the total in 1848 to 0.3% of total by 1884 (Daly 1991, 27). Ireland's slower adaptation to the new production system than her continental competitors was attributed to the absence of state aid for agriculture, the less well developed education system, and the land tenure situation (O'Donovan 1940, 308).

In Ireland, separators were first used by some wealthy farmers and by some private creameries, which were established in the early 1880s. By 1884, 20 privately owned creameries were established and the first co-operative creamery was established in 1889 at Dromcollogher in County Limerick. In 1898, there were 324 creameries in Ireland; 250 were located in Munster of which 132 were proprietary, 107 were joint stock and 85 were co-operatively owned (O'Donovan 1940, 325). An early investor in the industry from Britain was the Condensed Milk Company, which set up and manufactured sweetened condensed milk at several locations throughout the counties of Tipperary, Cork and Limerick from the 1880s onwards. By 1906 the number of creameries had increased to 800 with less than half co-operatively owned. This growth was driven by a slump in the price of firkin butter, as creamery butter became more popular on the British market (O'Grada 1977). A Ministry of Agriculture and Technical Instruction institute was established in 1900.

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<sup>20</sup> The centrifugal separator was invented by Dr. Gustaf de Laval in Sweden in 1877/78 (Curran 1992).

In the early decades of the 20<sup>th</sup> century, the creamery system operated in a very competitive environment. Creameries competed with one another for milk supplies at home and with Irish, Danish and other suppliers in the export market (O'Grada 1977). In Ireland, the issues of ownership and control were important, as private and co-operative creameries vied for milk supplies and markets. In contrast to Scandinavia, private businessmen had a significant role in the early development of the Irish industry. Bolger (1977) notes that when co-operative creameries were being set up, they were reluctant to seek much needed capital from farmers because of competition from privately owned creameries. As a result, co-operative creameries tended to be under-capitalised, a problem which has persisted.

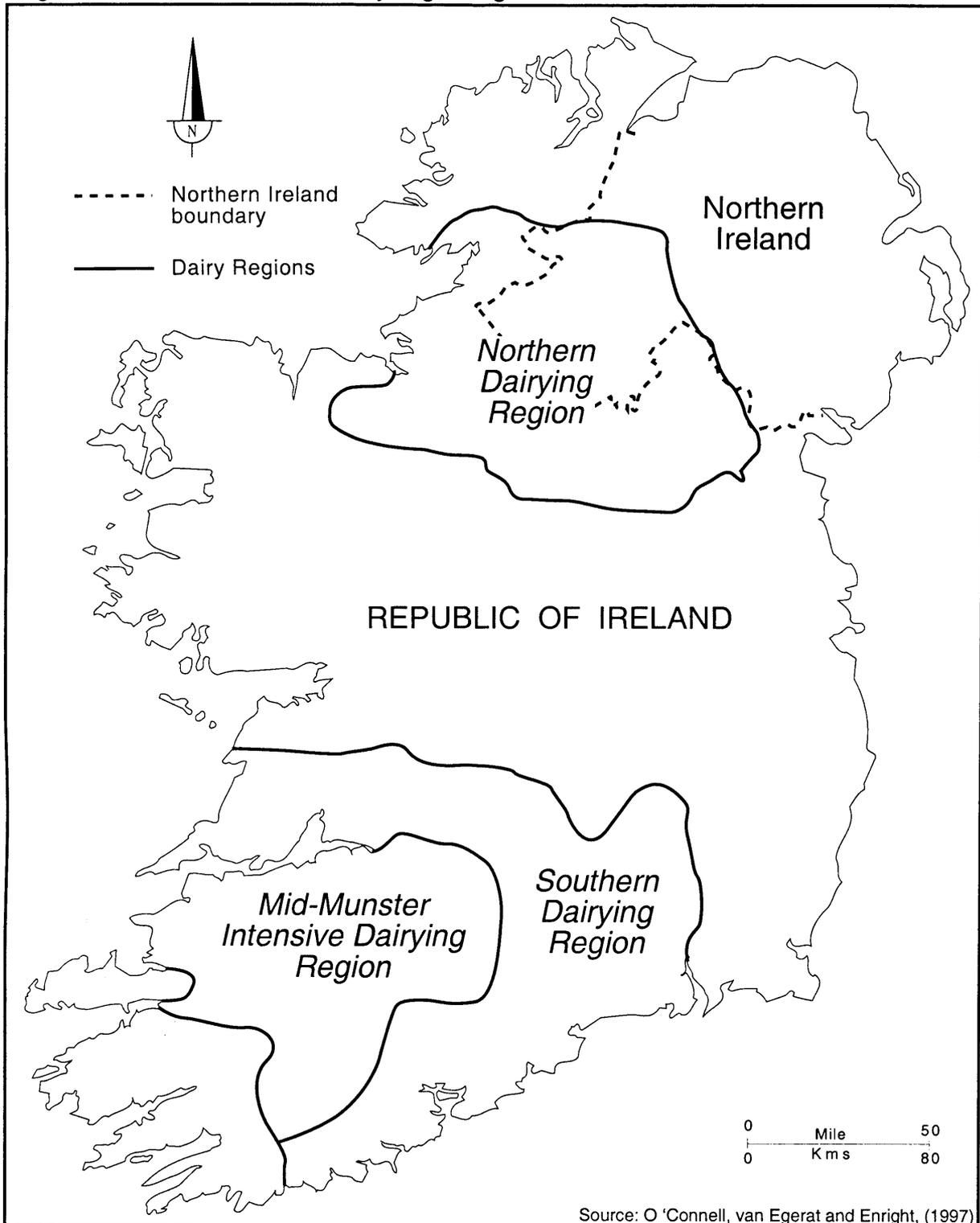
Many of the private creameries set up in Ireland were by families and merchants who were involved in the butter trade. Joint-stock creameries involving investment from private business and from producers were also set up. Co-operatives continued to grow in number; they were vigorously promoted by the Irish Agricultural Organisation Society<sup>21</sup> (IAOS). However, the Co-operative Wholesale Society (CWS), based in Manchester, set up approximately 90 creameries in Ireland, against the wishes of the IAOS, in the late 1890s. They were not successful and sold out in the early 20th century (Bolger 1977).

Geographically, two dairy industry regions emerged (Daly 1991) identical to the dairy farming regions at that time (see Fig. 6.1). The principal one stretched across mid-Munster centred mainly on the Counties of Cork, Limerick and Tipperary. The second region encompassed the Counties of Cavan, Monaghan, Sligo and Roscommon. In the early period, private creameries were dominant in the south; they were well established before co-operative creameries were set up. In contrast, co-operative ownership was the norm in creameries in the northern region (Daly 1991). However, a significant proportion of milk was still processed into butter at farm level, especially outside Munster. In 1906 just over 50% of milk available for manufacture was delivered to creameries. The failure to attract

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<sup>21</sup> The IAOS played a major role in the development of co-operative creameries through the dissemination of information, assistance in the training and selection of qualified creamery personnel and in acting as a pressure group for the dairying interest (O'Grada 1977).

Figure 6.1 Ireland Dairying Regions



a more significant proportion of the national milk supply was an impediment to the development of the industry. Also, the government was not yet convinced of the need for a strong creamery industry, as it continued to give grants for hand separators to be used in the home up to 1907 (Daly 1991, 92).

In the early decades of the 20<sup>th</sup> century, the industry simply consisted of central and auxiliary creameries; the central creamery was the centre of operations where butter was manufactured. Auxiliary creameries separated the cream from the skim milk and transported it to the central creamery for manufacture into butter. Auxiliary creameries were set up to gather milk supply from outside the range of the central creamery. They did not require the same level of investment as a central creamery and in times of competition were set up to poach milk supplies from neighbouring creameries.

There were some early attempts at regulation of the industry through legislation. In 1907, the Butter and Margarine Act was introduced, which prevented the sale of butterine (margarine) as creamery butter; this Act eliminated a prominent abuse of butter markets at the time. Also, the Dairy, Cowsheds and Milkshops Order was introduced, which allowed Department of Agriculture inspection of dairies (excluding farmers). However, this legislation lacked the necessary power through fines or the closure of a business. For example in 1908, 448 premises were inspected, of which only 48% were approved for manufacturing; however, the remainder remained in business (Daly 1991, 95). Schemes were initiated to train buttermakers and creamery managers, but the number successfully trained had little impact on the industry. However, the industry also resisted attempts at regulation; in 1913, the IAOS successfully blocked an attempt to introduce a bill to legally define butter (Daly 1991).

The Irish dairy industry grew out of the farm-based, merchant dominated, butter trade. O'Grada (1977) concludes that the diffusion of the co-operative creamery was earlier and faster in Denmark than in Ireland and the inroads made by the Danes on the UK market at the expense of the Irish would support this view. On the other hand, where the concentration of cows was similar to that in Denmark, for example Co. Limerick, the

diffusion of the creamery system almost matched that in Denmark (O'Grada 1977). Nevertheless, the geography of the industry closely resembled that of dairy farming because of the necessity to locate close to a bulky and perishable raw material. Ownership in this early period was dominated by private interests, especially in the south. The spread of the co-operative creamery system in Ireland was very much associated with the leader of the IAOS - Horace Plunkett. This strong influence of a wealthy individual contrasts with a grass-roots development of a co-operative creamery system in Denmark. Indeed, Daly (1991) considers this 'top-down' influence in Ireland hindered the development of the industry; in contrast there was a bottom-up development in Denmark. Plunkett later became the first Minister for Agriculture and Technical Instruction in 1900. This fostered close relations between government and the co-operative movement through the IAOS.

While the dairy industry grew rapidly, based on diffusion of the separator, in this early stage farm-based production continued to dominate. The majority of milk did not pass through the creamery system. In addition, co-operatives vied with privately owned creameries for control of the milk supply, with private creameries very prominent in the main dairying region in the south. The development of co-operatives was based on pioneering work by the IAOS and prominent local individuals, rather than coming from a strong local desire to set up co-operatives. The co-operative system based on accumulation remaining with the producer was, therefore, not deeply rooted at the community level in the Irish industry. At this stage, the state played some supporting role for the industry but was not directly involved.

### **6.3 Stagnation and Regulation, 1921-1960**

Following the dynamism of the initial growth and development of the industry, a difficult period ensued, referred to as the "Dreadful Years" by Bolger (1983). The difficulties arose out of the international economic depression and the particular regulatory framework within which the industry operated in Ireland. In this period, the state became directly involved in the industry and put in place a regulatory regime, which strongly influenced the structure and ownership of the industry.

Up to 1920, the industry had experienced prosperity; during the First World War, markets were favourable and turnover in the industry increased. High prices for cheese stimulated its production and export to England; by 1919, 200 creameries were involved in its production (Foley 1993). However, after 1921, prices and production of cheese began to fall. Prices of butter also declined due to its importation from outside Europe and the poor economic situation in Britain (Bolger 1983). The poor market for dairy products, combined with the War of Independence (during which many co-operative creameries were burned), drove many farmers out of dairying (some returned to farm production). As a consequence, there were too many creameries for the available milk, and severe competition for milk ensued between co-operatives and private creameries, as well as between co-operative creameries themselves. Often, the result was the setting up of new creameries in areas with little regard for existing facilities (Bolger 1977).

**Table 6.1 Irish Co-operative and Private Creameries 1898-1926**

	1898	1905	1926
Propriety and Joint Stock Creameries	239	537	180
Co-operative Creameries	85	254	400
Total	324	791	580

Sources: Compiled from Bolger (1977, 215); O'Donovan (1940, 325); and Kennedy (1983, 107)

By 1926, of the 580 central and auxiliary creameries in the Irish Free State, 400 were co-operatives and 180 were propriety creameries (114 of these were controlled by the Condensed Milk Company) (see Table 6.1). The Condensed Milk Company (CMC) was more diversified in its range of products than the other creameries; it produced products other than the single product (butter) of the co-operative creameries and in addition had better marketing outlets.

In response to the problems of the industry, in 1928 the Department of Agriculture set up the Dairy Disposal Company Board (DDC) to manage the creameries it bought out until they became integrated into the co-operative system. In its initial decade, the DDC purchased most of the privately owned and some of the co-operative creameries. By 1931, the DDC had purchased 170 propriety creameries; 79 were closed and 44 were transferred

to co-operative ownership. Also taken over were 17 co-operative creameries; of these, four were closed, 13 were retained and four new creameries were built. The DDC also extended the existing system with auxiliary and mobile creameries for economic and social reasons (Bolger 1977, 217). Mobile creameries (a truck fitted with milk weighing and separating equipment) were used to encourage dairy farming in the more peripheral areas of the south-west where branch creameries did not exist. As the milk supply developed in these areas, branch creameries were opened to replace the mobile service (Foley 1993). However, the DDC continued to operate in the dairy industry for over 40 years and took over other creameries, which got into difficulties. It became the subject of criticism, as it was felt it had outlived its usefulness and was considered to be reactionary and unprogressive (Bolger 1983). Also, in 1928, the state introduced a licensing system, which controlled the establishment of new creameries. In 1924, the Dairy Produce Act was introduced to set standards for the production and manufacturing of dairy produce. This legislation was aimed at improving the quality of butter, which had been a problem on the British market. By the 1930s, therefore, the dairy industry was firmly in co-operative or public control and a regulatory system controlling production and entry into the industry was in place. The industry had evolved to a system of branch and central creameries with buttermaking the predominant processing activity, and Britain the principal export market. Branch creameries had a catchment area of three to four miles in the principal dairying areas - this being the limit of a horse and cart delivery system (Foley 1993).

The substantial decline in the price of butter in the 1930s caused the government to introduce price support for butter. In addition, the dairy industry was severely affected by the outbreak of the economic war with Britain in 1933; it resulted in heavy duties on Irish exports to Britain. During World War II, the scarcity of supplies and the introduction of compulsory tillage cultivation resulted in low levels of milk supplies. Supplies remained low until 1949, when a gradual improvement began. The combination of price support for butter and low levels of milk supplies inhibited the diversification of the industry. The provision of Marshall aid, after the War, did result in improved soil fertility and drainage. This coupled with better cattle stocks and price supports for milk stimulated increased milk supplies.

Throughout this period, the number of co-operative creameries<sup>22</sup> fell - from 272 in 1931 to 193 in 1951 (see Table 6.2). Bolger (1977) attributes this to a gradual process of attrition and rationalisation. While this may be true for 1941 to 1961, there was a significant decline of 58 co-operative creameries (21%) between 1931 to 1941. Contributing to these structural changes were the difficult economic conditions of this time, as well as structural changes implemented by the DDC following its establishment.

**Table 6.2 Dairy Co-operatives (Ireland), 1931-1995**

Year	1931	1941	1951	1961	1970	1975	1980	1985	1990	1995
No. of Dairy Co-operatives	272	214	193	186	158	57	50	48	35	35

Sources: Knapp (1964); and ICOS Annual Reports

The new regulatory regime for the industry had a significant impact on its structure and ownership. Breathnach (1994) considered that the consequences of the new regulations were very favourable for the co-operatives, as private ownership of creameries was gradually changed to co-operative or public control. This outcome reflected the strong support by the commercial farm sector for the party in power (Cumann na nGaedheal) and the close relations between the Department of Agriculture and the IAOS (Breathnach 1994). Out of the restructuring and re-regulation of the industry in this period, a partly state-owned and protected industry emerged; the state ensured that producer-led accumulation would be the dominant accumulation system for the industry. State control of the industry through the DDB also facilitated some concentration of capital through rationalisation. The trade links that had been established in earlier were disrupted in this period due to political instability and fluctuating economic cycles.

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<sup>22</sup> Data on the number of non-co-operatively owned dairy companies is not available for this time period. However, during this phase of the industry, co-operatives dominated the industry.

## 6.4 Renewed Dynamism and Reorganisation 1961-1986

In response to a more proactive role of the state, favourable economic conditions and increasing milk supplies, the industry entered a new and dynamic phase of growth and reorganisation after 1961. Joining the EEC, in 1973 with its very favourable supports for the dairy sector, was also a major influence on the growth of the industry; this issue has been examined in more detail in Chapter 5. In this section, this phase is examined by initially discussing the changed role of the state and then analysing the structural and geographical outcomes of this dynamic period.

### 6.4.1 *New Role of the State*

The national state became more actively involved in promoting growth, investment and change in the industry. In particular, the state strongly influenced developments in marketing, trade, research, investment and the structure of the industry. From an early stage, the lack of a co-ordinated approach to marketing was a problem; unsuccessful attempts<sup>23</sup> were made to co-ordinate marketing on an industry-wide basis in 1893, 1928 and 1936. Attempts in 1893 and 1928 by the industry failed because the creameries did not support the marketing agencies. The state (through the Minister of Agriculture) initiated the attempt in 1936, but the onset of World War II curtailed its potential. In 1959 a co-operative marketing agency for Irish milk powder exports was set up through an arrangement with Unigate. Then in 1961, the Irish Dairy Board (An Bord Baine) was set up by the government. The Bord consisted of representatives of milk producers, manufacturers and the Department of Agriculture and had responsibility for butter and export marketing (excluding chocolate crumb, milk powder for baby foods and some cheese).

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<sup>23</sup> In 1928, a central marketing agency for marketing of dairy produce (principally butter) was established; it was known as the Irish Associated creameries but only lasted to 1930. It failed due to lack of support by creameries and due to a huge fall in export butter prices. A similar failed attempt at co-operative marketing had also been made in 1893 (Kennedy 1983). In 1936, a Butter Marketing Committee was appointed by the Minister for Agriculture to organise and co-ordinate the export marketing of butter. The outbreak of World War II interrupted its function, however, it remained in operation until An Bord Baine was established in 1961.

Through advertising and a marketing plan, the Bord launched Kerrygold, a branded Irish butter onto the British Market; it was later extended to Middle East, American and European markets. Up to Ireland's entry to the EEC in 1973, An Bord Bainne had operated as a statutory marketing agency with almost exclusive control over dairy product exports. This situation was not compatible with EEC policy; therefore the Bord was changed to a co-operative, in which the dairy product manufacturers were shareholders.

The state also improved trade conditions for the industry; by the early 1950s, butter exports to the UK had resumed. The signing of the Anglo Irish Free Trade agreement with Britain in 1965 was of further assistance; this helped the industry considerably by doubling the existing butter quota. Also, in 1958, the Agricultural Institute was set up by the government; it played an important role in the improvement of agriculture through research and dissemination of information (Neenan 1992). This helped to increase milk production, thereby stimulating growth in the dairy industry.

Also, the Government, motivated by growth-orientated policies and a desire to prepare the industry for membership of the EEC, influenced structural change in the industry. Several studies<sup>24</sup> of the dairy industry were initiated by the government during the 1960s. All the reports (from these studies) stressed the need for rationalisation and amalgamations in the dairy industry to achieve economies of scale and allow diversification, as well as the need for orderly marketing (Smith and Quinn 1974). The report on the Dairy Products Industry (Report of Survey Team 1964) pointed out reorganisation (concentration) had not occurred in the industry. Reasons attributed to this situation included: the conservatism of co-operative management, the legislative barrier to entry, the agreement among creameries not to compete for milk supplies, the ability of each creamery to fix its own milk prices, the guaranteed return on butter and the protected home market for dairy products. Also, analysis showed that 80% of creameries in Munster were within six miles of each other, while improvements in transport and roads had long made such proximity redundant.

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<sup>24</sup> These included a study by an expert team to examine changes necessary for entry to the EEC, a study by the Irish Agricultural Organisation Society (IAOS later the ICOS), and a study commissioned on the Irish dairy industry organisation commissioned by the Department of Agriculture.

The report of the Survey Team also questioned the ability of the IAOS to steer the process of reorganisation. However, the government backed the IAOS as the organisation to lead the change in the industry (Leavy 1991). In response to these reports, the IAOS published detailed proposals on reorganisation in 1966; the plan proposed the amalgamation of adjacent creameries to form rational and compact geographical units. However, a new set of amalgamation proposals were put forward in 1972 by the IAOS to take into account the growth in the industry and the reorganisation that had already occurred (Leavy 1991).

#### 6.4.2 *Changing Structure and Geography*

During the 1960s and 1970s, there was a significant change in the structure and geography of the industry. As well as encouragement from the state, the changes were facilitated by the takeover of DDC creameries by the co-operatives, a rapid growth in the milk supply, the building of new plants in several locations, and a change in the rules of co-operatives from which a 51% majority vote for amalgamation was required rather than 75% as heretofore. During the 1970's, the closure of smaller creameries and the centralisation of processing facilities was also greatly facilitated by the change from delivery of milk by farmers to the local creamery, to bulk collection ex-farm by milk tanker.

The increase in milk production was very rapid, especially during the 1960s and 1970s (see Table 6.3). Deliveries increased by 229 million gallons (81%) from 1960 to 1970 and by 325 million gallons (63%) from 1970 to 1980. Also, during the 1960s, there was substantial growth in dairying in the West of Ireland; in the province of Connaught, for instance, milk production increased from 12.3 million gallons in 1960 to 26.13 million gallons by 1970.

**Table 6.3 Irish Creamery Milk Deliveries 1950-1993**

Year	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995
Millions Gallons	230	238	280	391	509	625	834	1105	1029	1027

Source: Keane (1995).

The structural change that took place was the result of local negotiation and arrangement. While the IAOS tried to co-ordinate the reorganisation, it did not have any statutory power to do so and the pattern that emerged was not what the IAOS had planned. In the industry, there was strong resistance to the amalgamation proposals from the IAOS. This was especially strong where smaller co-operatives were expected to merge with larger neighbours. Existing milk supply links paved the way for rationalisation, but not in line with IAOS proposals. Some smaller processors remained independent. Some had supply links with foreign owned processors for example, Wexford and the West Cork co-operative creameries while others survived despite their small scale.

As a consequence, a geographical patchwork emerged without a rational allocation of milk supplies. Rational and compact geographical units did not emerge as planned. The highly fragmented pattern<sup>25</sup> continues to be evident, especially in the Counties of Limerick and Tipperary where milk supply territories are fragmented (see Fig. 6.2). In addition, many very small dairy processors have survived in the heart of large processors territory: for example, Mullinahone in the south of Avonmore's territory, Lee Strand in Kerry and North Cork, and Boherbue in Dairygold.

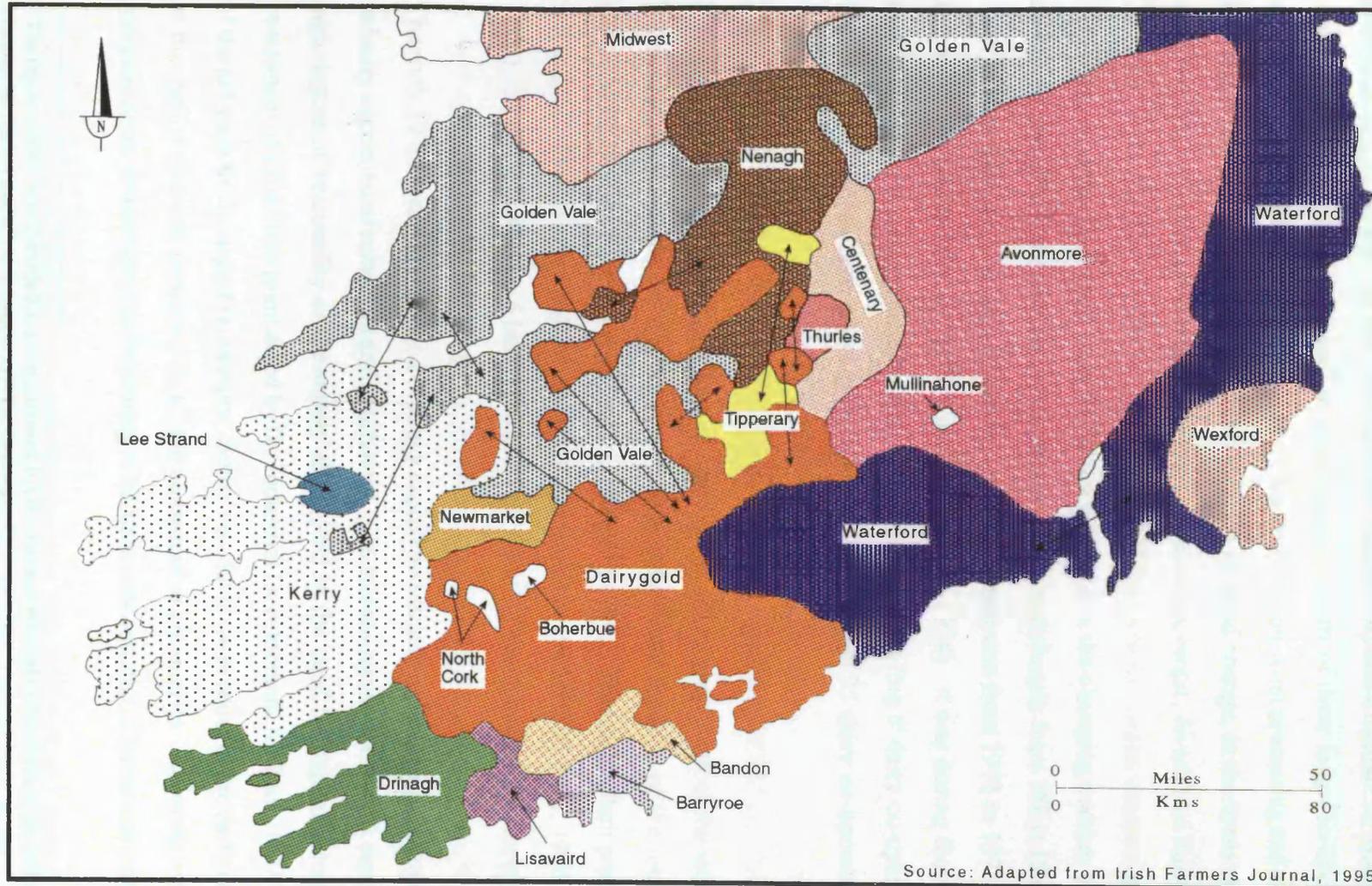
Also, from the amalgamations, boards with large numbers of directors were formed which were not conducive to effective decision making. In addition, uneconomic promises to maintain plants, staff levels and facilities were made in some cases (O'Leary 1983). Out of the reorganisation in the north and west of the country, Lough Egish, North Connaught Farmers and Donegal emerged as major processors. In the south, 6 major groups emerged including: Avonmore based in County Kilkenny, Ballyclough<sup>26</sup>, Golden Vale, Mitchelstown based in County Cork, Dungarvan based in County Waterford, North Kerry based in County Kerry and a group of creameries based in County Tipperary (Bolger 1977).

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<sup>25</sup> It has not yet been possible to reconstruct the milk supply pattern for the early 1970s. However, the pattern in 1995 (Fig. 6.2) is not substantially different from that of the early and mid 1970s.

<sup>26</sup> In 1991, Ballyclough and Mitchelstown (two of the 'big 6') merged to form Dairygold, therefore from this time the industry is dominated by the 'big 5'.

Figure 6.2 Milk Supply Territories in the South of Ireland, 1995



As well as the 6 large dairy co-operatives, there also emerged a second group of 6 dairy co-operatives, 10 smaller in size but regionally important, and a further 20 smaller co-operatives (O'Leary 1983). As well as amalgamating, many of these larger co-operatives also diversified into farm input manufacture and distribution, meat processing and artificial insemination. The 1960s and 1970s were a period of rapid change, as the focus changed from autonomous local creameries to centrally controlled, larger, diversified businesses.

The changes of the 1960s and early 1970s are reflected in the changing number of dairy co-operatives. The number of dairy co-operatives declined sharply from 158 in 1970 to 57 in 1975 (see Table 6.1). In this period the greatest decline was from 1971 to 1973, when the number declined from 147 to 69 (Smith and Quinn 1974). It was during these years that much of the amalgamations leading to emergence of the 'big 6' dairy co-operatives. Since 1975, there has been a steady decline, resulting in just 35 dairy co-operatives by 1990.

The group of 6 large processors which emerged increased its proportion of the total milk supply during the 1970s. These six co-operatives accounted for 14% of the total milk supply in 1970. This grew to 61% of the total supply by 1975. Thereafter, their proportion fell to 59% of total supply in 1980 and 56% of the total in 1985 (ICOS 1971, 1976, 1981, 1986). Since 1992, the top 5 have accounted for 63%<sup>27</sup> of the national milk supply.

The early 1970s were also a period of heavy capital investment as the reorganisation of the industry necessitated new plant and equipment. The increasing volume of milk supply and high degree of seasonality of the supply also added to the need for capital investment. Investment of £20M was grant aided by the Industrial Development Authority (IDA); 85% of the aid went to the largest processors. Butter was the main product of the dairy industry in this period and was produced by all the co-operative creameries. However, with the reorganisation, production was beginning to become concentrated. Cheese was increasing

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<sup>27</sup>The figure of 63% was identified in an unpublished ICOS source; it is based on the share of the national milk quota under the control of the 5 largest milk processors.

in importance and had risen from 5% to 15% of milk supply from 1963 to 1973. Other products, mainly for export, included chocolate crumb and condensed milk (Smith and Quinn 1974).

Also, in the 1970s, competition between the main dairy co-operatives increased; milk prices paid to farmers, levels of profitability and development of new products were closely followed in the press with dairy co-operatives trying to outdo each other. The introduction of milk quotas in 1984 marked the end of an era of in the dairy industry. Up to this point, the industry had developed to process the continuously increasing milk supply and with guaranteed outlets could rely on intervention as an outlet for products.

#### *6.4.3 Foreign Investment 1940-1980*

In this period of growth, investment by foreign owned companies was a prominent feature in the industry. Foreign companies, mostly based in the UK and US, became involved, operating independently or in joint ventures with Irish co-operatives. There were three sub-phases of investment, which can be linked to specific products in this period: chocolate crumb<sup>28</sup>, cheddar cheese and milk powder (see Fig. 6.3 and Appendix 10). Initially, chocolate crumb was the focus of attention.

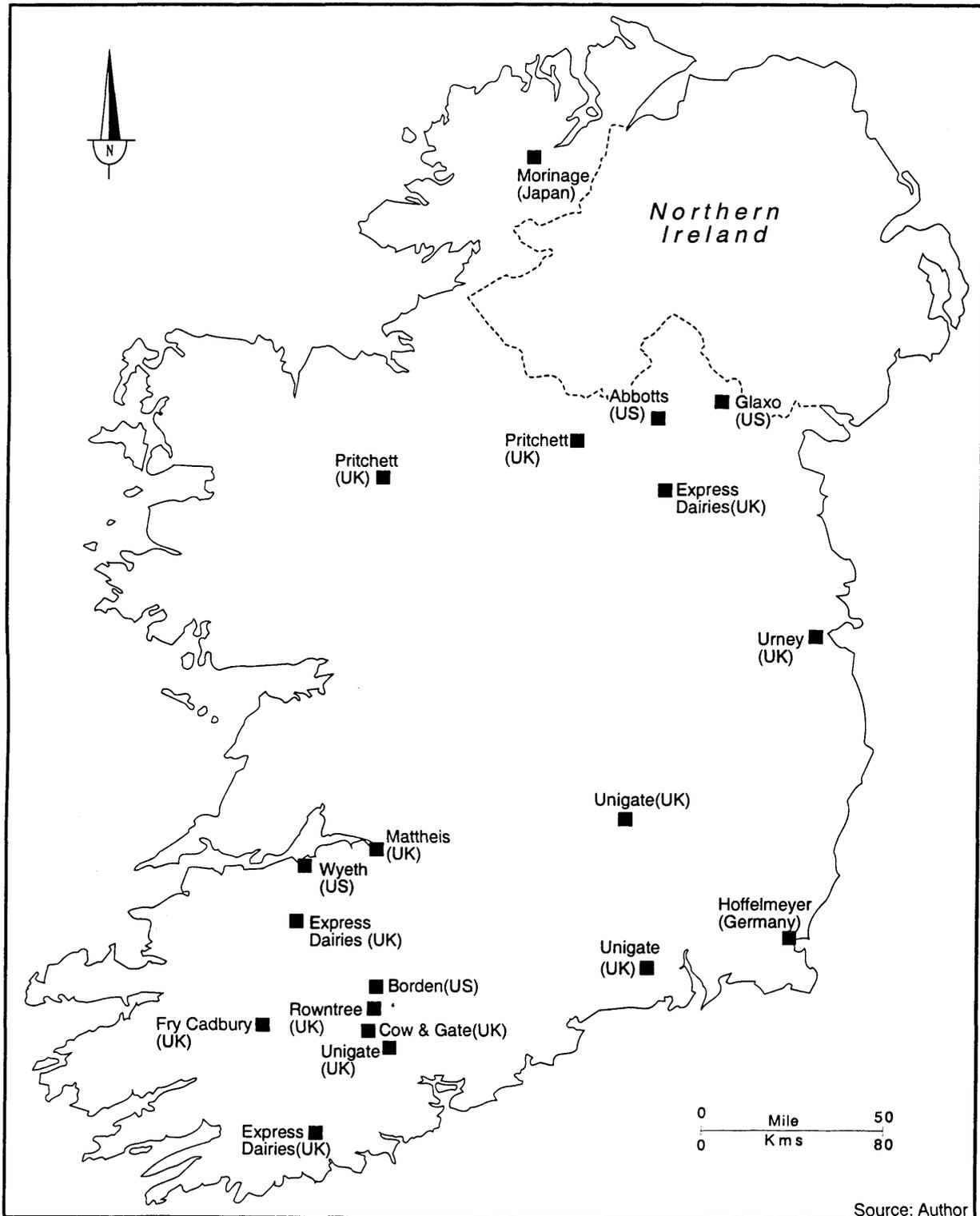
Chocolate crumb became an increased outlet for milk supplies, and foreign owned companies such as Rowntree Mackintosh and Fry Cadbury set up plants<sup>29</sup> in Ireland. Throughout the 1960s, the UK companies of Unigate and Express Dairies dominated investment in cheddar cheese, mostly in joint ventures with Irish companies. Unigate, in

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<sup>28</sup> Chocolate crumb is an ingredient for the confectionary industry made from cocoa, milk and sugar.

<sup>29</sup> Chocolate crumb was manufactured at Mallow, Dublin, Rathmore (Co. Kerry from 1948), Dungarvan from 1949 and Mitchelstown from 1953. This sphere of manufacture was dominated by foreign owned companies such as Rowntree Mackintosh at Mallow, Urney at Dublin and Fry Cadbury at Rathmore (Foley 1993). See also Appendix 10.

Figure 6.3 Foreign Investment in the Irish Dairy Industry 1945 - 1975



conjunction with local co-operatives was involved in three processing plants<sup>30</sup> and Express Dairies was involved in two plants. A national cheese grading scheme for cheddar cheese was introduced by the Department of Agriculture in 1966. The phase, up to the early 1970s, involved investment in milk powder plants by US and UK based companies. Most of these operations were wholly owned by foreign companies.

Geographically (see Fig. 6.3) the plants of foreign investors were located in the dairying regions, usually adjacent to the dairying co-operatives. For example, foreign owned milk powder plants specialising in infant food were located in the Counties of Limerick, Cavan, Wexford and Cork. In the case of Mallow, two foreign owned-processors located their chocolate crumb and milk powder plants on the same site as a Dairygold plant. Also, at Wexford, a foreign-owned infant food plant, a co-operative/private joint-owned cheese plant and a co-operative plant now occupy the same site.

By the early 1970s, the state had significantly influenced the development of the industry through setting up favourable conditions for marketing, trade, growth and industry change. Producer-led accumulation was dominant in this period. The state had returned the industry from Dairy Disposal Board control to the co-operatives and An Bord Bainne was also placed under co-operative ownership. However, by the mid-1980s, the industry came to the end of a phase of two decades of growth and change. In this period the number of co-operatives had declined by two-thirds and six large dominant processors had emerged. Capital had begun to concentrate in more significant blocks. International links changed from trade links with the UK to wider, global trade links and foreign direct investment, especially by UK and US companies, that had become important for the industry either as partners in joint ventures or as customers using Irish dairy processors products.

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<sup>30</sup> Unigate set up a cheddar cheese factory at Wexford in 1960, at Rathduff, Co Cork in 1963 (in conjunction with Ballyclough co-operative) and at Kilmeaden, Co Waterford in 1964 (in conjunction with Dungarvan co-operative). Also, Express dairies set up cheddar cheese factories in west Cork and west Limerick in 1971 in joint ventures with a group of creameries in west Cork and Golden Vale respectively. See also Appendix 10.

## 6.5 Internationalisation 1987-1997

With the introduction of milk quotas in 1984, a limit was placed on the expansion of milk production and consequently on the scope for expansion for dairy processors. In this new regulatory environment, overseas expansion through acquisition of existing facilities has been the principal focus of expansion and growth for the Irish dairy processing industry. However, there has also been some internal structural change facilitated by the withdrawal of some foreign processors from the Irish industry.

First, turning to international acquisition, economies of scale, strong cash flow and organisational resources available through domestic activities facilitated such acquisition by Irish companies (Breathnach 1996). Most of the acquisitions have been of UK and US companies, and to a lesser extent European based companies (see Appendix 11). The Kerry Group has concentrated on the US, initially in the acquisition of larger food ingredient companies, such as Beatreme in 1988 and DCA in 1994, and more recently in Europe with the acquisition of Dalgety in 1998. Cheese companies in the US mid-west and dairies in the UK (region) have been the target of Avonmore (see full details of acquisitions by the Irish dairy processing industry in Appendix 11).

Waterford also have significant acquisitions in the liquid milk business in the UK, and in the UK cheese market, especially with the acquisition of The Cheese Company in 1995. Golden Vale has also made acquisitions in processed cheese, spreads (in NI, Netherlands and UK) and, to a lesser extent, in the liquid milk market in the UK. Dairygold has been the last of the large dairy companies to join the acquisition trail with the purchase of Horlicks in the UK in 1994. Of the smaller processors, Tipperary is the only one to acquire facilities abroad with the purchase of CPL Davoine in 1989.

Turning to change within Ireland, expansion within Ireland was only possible by merging or acquiring other processors. The co-operative dominance of dairy processing was briefly threatened by the acquisition of Bailboro and Westmeath co-operatives in the North-East by Food Industries. Food Industries was controlled by Larry Goodman, a dominant player

in the beef processing industry in Ireland. However, Food Industries got into financial difficulties in the early 1990s and Golden Vale acquired the dairy processing facilities. A number of significant mergers occurred in the 1990s: in 1990 Dairygold and Mitchelstown merged to form Dairygold, in the same year Lough Egishá and Killeshandra merged to form Lakeland Dairies and in 1997 Avonmore and Waterford merged to form Glánbia. An attempt at merger by the four West Cork co-operatives was unsuccessful; however, these co-operatives did acquire Carbery Milk Products in 1992.

The largest dairy companies that have emerged in Ireland, however, are small compared to their European and global counterparts (see Table 6.5). For example, the largest Danish processor - MD Foods - has a milk supply greater than the 4 largest Irish processors together. Similarly, the scale of the Irish processors remains small compared to Dutch, New Zealand, Australian and American processors.

**Table 6.4 Scale and Concentration in the International Dairy Processing Industry**

Country	Scale of Largest Processors-Milk Supply (Millions tonnes)	Concentration Ratios
Ireland	3.7	4 largest processors account for 70% of processed milk
Denmark	4.4	Largest processor accounts for 90% of processed milk
Netherlands	8.6	Two largest processors account for 85% of processed milk
US	17	Largest processor accounts for 24% of US milk supply
New Zealand	9.9	Two largest processor account for 94% of milk supply
Australia	6.2	Three processors account for 60% of milk supply.

Source: ICOS (2000); and Danish Dairy Board (1997).

Therefore, by the mid-1990s, the dairy co-operatives had maintained their dominance (despite a brief threat by Food Industries) of the dairy processing sector in Ireland;

however, the majority of the larger ones had adapted their co-operative structure to operate as international food companies. Dairy co-operatives in Ireland had accounted for 99% of the milk supply compared to 48% in France and 92% in Denmark. However, four of the large dairy co-operatives have changed their status to a public company, with 51% of shares owned by the co-operative. The larger processors claim they need to change to PLC status to get access to capital to fund expansion. An alternative view of the motivation to change to PLC status is the desire for management to free themselves of control by farmer shareholders and to gain greater financial rewards through share options (Breathnach 1996). The change in status of the co-operatives was very significant; it represented a switch from producer-led accumulation to investor-led accumulation. The key driving force of the industry was changing. Maximising milk price for the producer was no longer the primary goal of those companies, which changed their status. Profit, growth and share price were now equally important.

In 1986, Kerry co-operative was the first to change to PLC status, followed by Avonmore in 1988 and subsequently Waterford and Golden Vale. Kerry further reduced the stake of the co-operative to 39% in 1996 and Gill (1989) expects farmer control of the PLC dairy companies to gradually decline further.

Irish processors also expanded through the acquisition of foreign owned facilities based in Ireland. Of the 19 examples of foreign investment, seven have been fully acquired by Irish dairy companies, many of these in the early 1990s (see Appendix Table 6.1). Only seven foreign owned companies remained in operation by the mid 1990s. This was facilitated by the withdrawal of Express Dairies from the Irish industry. Waterford Foods was the main beneficiary here as it acquired Premier Dairies and Virginia Milk Products; the West Cork co-operatives acquired full ownership of the other important Express operation Carbery Milk Products at Ballineen Co. Cork.

In this period, as well as expansion, there was also focus on change within the companies. Foley (1993) notes that, following the introduction of quotas, greater attention was focused on yields, waste elimination, added value products and manufacture of dairy ingredients for

specific end-uses. The upgrading of hygiene, quality and environmental standards also became a greater priority.

From being Irish-based and producer-led, a significant segment of the Irish industry by the mid-1990s, was increasingly internationally orientated, and driven by the growth and profit concerns of the stock market. Concentration within the Irish industry has continued and scale has increased but the industry lags behind international levels. A significant proportion of foreign investment in the industry has been enveloped by the indigenous industry. While the state encourages increased scale in the industry, it does not actively involve itself in altering the structure of the industry. The EU has superseded the state in regulatory terms, with the state playing a supporting role for the industry.

## 6.6 Conclusion

Based on the empirical review of the development of the Irish industry, some conclusions will be drawn using Marden's (1992) five elements of the MSR (see p.18 and italicised below) and the notion of hegemonic groups or coalitions to take account of the socially contested nature of the MSR.

The *type of market and competition* has evolved from a first food regime model of a settler state provisioning an industrialising power, to an industry tied to a favourable form of supranational institutional regulation. *Labour relations* do not emerge as an issue in the empirical review; therefore, no conclusion can be drawn on this. In terms of *financial relations*, the weak financial base of the industry in its early stages compared to, as we will see, the Danish industry was a problem. The top-down nature of dairy co-operative development in Ireland made it more difficult to encourage investment from producers. In the 1960s and 1970s, foreign capital was important in providing new technology, knowledge, skills and management for the industry, as UK based processors took advantage of accumulation opportunities through the availability of a relatively cheap, plentiful raw material (i.e. milk).

*Global links* have evolved from dependency on a colonial power (first, as a food provisioner, and later as a source of foreign capital), to global trade links subsidised by the CAP market regime. However, exports were directed through the Irish Dairy Board, which controlled these trade links. More recently, internationalisation by some of the larger dairy companies have expanded direct global links by the companies themselves. The changing fortunes of capital seeking accumulation opportunities are evident from the Irish industry. Foreign capital used the Irish industry as an attractive location for accumulation in the 1960s and 1970s, but, by the early 1990s, domestic capital had acquired the foreign-owned plants based in Ireland.

*Government influence* has been very important for the Irish industry; initially, in conjunction with the IAOS, in ensuring co-operative dominance of the industry, later, in first sheltering and then promoting growth and development of the industry. Since 1973, joining the EU has shifted the locus of power for the industry, away from the national government. National level regulation relating to dairy markets has become secondary to supranational regulation through the CAP of the EU.

In identifying *hegemonic groups* or coalitions, the IAOS in conjunction the Department of Agriculture certainly emerge as dominant in the early phases. However, as the industry grew and developed in the 1960s and 1970s, the Irish Dairy Board had a very influential role in pooling the output of the industry and controlling the export and market links. As the major companies have grown and internationalised in their own right, this role has since diminished for a significant part of the industry.

A significant finding to emerge from this chapter is that accumulation type forms an important part of the hegemony element of the MSR for the Irish dairy processing industry. Two types of accumulation are identified; producer-led and investor-led accumulation. '**Producer-led accumulation**' refers to accumulation in which the milk producers are the owners of the means of production and have a significant influence on the direction of the accumulation process in the particular organisation. '**Investor-led accumulation**' refers to accumulation in which the investors of capital own the means of production and have a

significant influence on the direction of the accumulation process in the particular organisation. This distinction in accumulation types (producer-led and investor-led) has not previously been identified and elaborated upon in the literature, but the concept is developed further in this thesis.

The overall argument deployed here is that producer-led accumulation has not been deeply rooted in the Irish industry. Rather, it developed as a function of state intervention. The state ensured co-operative dominance through regulation and protected it from non-co-operatively owned competition. Later, in the 1980s, the industry switched to investor-led accumulation (rather than concentrating capital domestically), thereby driving growth and internationalisation of the industry.

Thus, based on this empirical review, it can be concluded that different elements of the MSR were important at different times in the development of the industry. The *state* was important in the early stage in ensuring that a co-operatively dominated industry emerged. Later, *foreign mobile capital* was important in supplying technology, knowledge, skills and access to markets, while benefiting from the accumulation opportunities in the relatively underdeveloped Irish dairy sector. In more recent times, *policy at the supranational level* (that is the CAP of the EU) was central in shaping the industry through the various market organisation measures. Since the mid-1980s, *financial relations* have been crucial; the shift from co-operative to PLC ownership has tied a significant part of the industry to the growth and profit concerns of the stock market. This also reflects a wider change in the nature of hegemonic relations - namely, a shift from producer to investor-led accumulation, which in turn, has been important in the rapid internationalisation of the industry. As the industry has internationalised so have the influences on the MSR. In contrast to the argument of Moran *et al* (1993), the co-operatives have not been a barrier to subsumption; rather they have facilitated and enabled the integration of the Irish dairy processing sector into the global dairy market regime.

Based on the changes in hegemonic relations, the Irish industry appears to be weakly attached to producer-led accumulation. For example, in the early period, much of milk

produced was outside the creamery system; private creameries were dominant in the south and the state intervened to secure the emergence of a producer-led accumulation system in the industry. This weaker attachment stems from an MSR in which actors removed from producers have been prominent and there also has been a heavy reliance on institutional regulation at state and supranational level. The weak attachment has remained and is evident in the shift from producer to investor-led accumulation by a significant segment of the industry in the 1980s.

Overall, the Irish industry has displayed an inability for collective action at local and at national level. The MSR in the Irish industry appears less cohesive than that of the Danish dairy industry. This may arise from the cultural and political context within which the industry developed and grew. There is greater competition within the sector. This often finds expression at the local level in the inability to co-operate or rationalise to achieve economies of scale. The inability for collective action is evident through the chaotic development phase (concluding with direct state intervention and ownership), the historical lack of co-ordination with regard to marketing until the state intervened, the difficulty in concentrating capital within the Irish industry, and the intense rivalry for control of milk supply during various phases. As a result, the state has played a significant role in regulating the industry. A less cohesive MSR resulted in a greater state role to maintain stability. This lack of cohesiveness in the MSR helps to explain the weak attachment to producer-led accumulation and its subsequent dilution through the change in status of many of the co-operatives in the late 1980s.

From these initial conclusions, the elements of the MSR for the Irish industry are explored further in Chapter 8, using the key actor interview material and secondary data.

## **Chapter 7**

### **The Danish Dairy Processing Industry**

#### **7.1 Introduction**

Having set the dairy processing industry in its European context, and examined the development of the Irish industry, the Danish industry is now addressed. Again, a basis is laid for understanding Marden's (1992) five elements that comprise the MSR relevant to the Danish dairy processing industry, in addition to the concept of hegemonic groups (accumulation type). A comparison of the MSRs for the Irish and Danish industries is developed in Chapter 10. The development of the industry is analysed by examining secondary source materials; these sources reveal three distinctive phases, which have parallels in the Irish industry. First, the industrialisation of the industry (1880-1900), in which the industry grew rapidly, predominately using a co-operative organisational form and strongly based in local communities. Second, a phase of consolidation and difficulty (1900-1970): consolidation as the industry maintained its strong market links with the UK, and difficulty as the state intervened to support the industry as economic recession resulted in protectionist policies in export markets. Third, a period of significant structural change in the industry, as integration in the EU facilitated growth and structural change (1970-1996). This integration into the European dairy sector, set in GATT's global regulatory framework, necessitated a reorientation of the industry and a greater degree of internationalisation of its activities. The main argument of this chapter is that producer-led accumulation is still deeply rooted in the Danish industry and this stronger attachment has enabled greater co-ordination of the industry and, ultimately, the almost complete concentration of capital.

#### **7.2 Early Development 1880-1900**

In the second half of the 19<sup>th</sup> Century, Danish agriculture had undergone significant changes in response to the influx of cheap grain into Europe from the United States, Canada and Russia. Cheap imports of grain resulted in lower prices and difficulties for

grain farmers. In response Danish farmers gradually switched to the production of higher priced butter and bacon (see Table 7.1) utilising the cheap grain as an input for the production of animal products (Neilsen and Ullum 1989). As in Ireland, until the 1880s, butter production (the principal dairy product) was farm-based, with individual farmers making butter for use on the farm and the excess being sold through local markets.

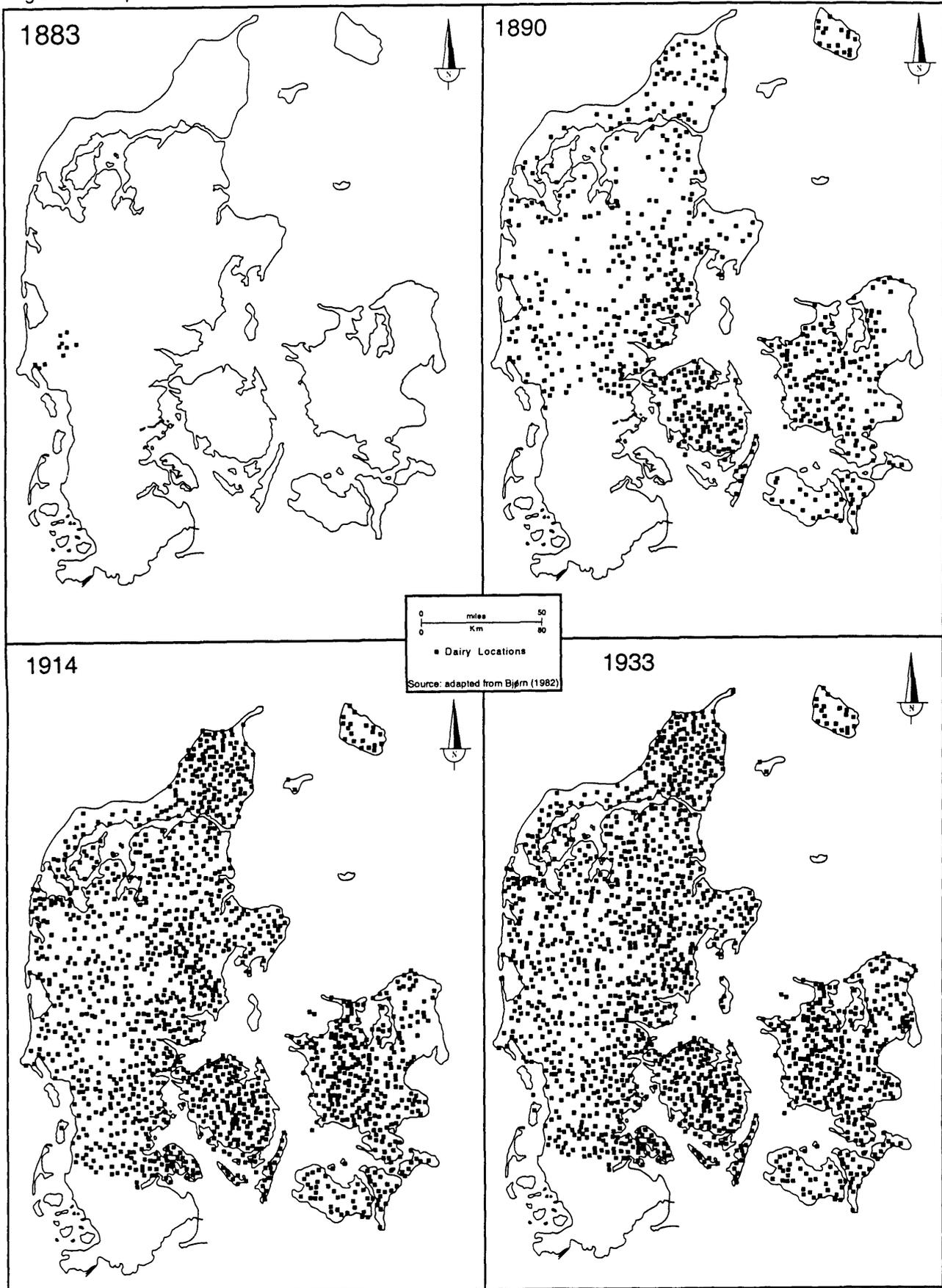
**Table 7.1 Prices of Major Agricultural Products (Copenhagen), 1866-1910**

Year	Wheat Kr./hectolitre	Butter Kr./100 Kg.
1866-1870	14	140
1871-1875	14	166
1876-1880	13	170
1881-1885	11	180
1886-1890	9	178
1891-1895	8	188
1896-1900	8	190
1901-1906	9	192
1906-1910	10	204

Source: Tracy (1989, 111)

The invention of the mechanical separator in 1878 (simultaneously and independently in Roskilde, Denmark by Neilsen and in Sweden by de Laval), as in Ireland, was an important development, which facilitated the industrialisation of the dairy industry. Some of the larger manor farms acquired separators and privately produced butter using the new technology. Then in 1882, the first co-operative creamery was founded in Hjedding in West Jutland. This was the beginning of the rapid industrialisation of dairying and the growth of co-operative creameries throughout Denmark (see Fig. 7.1) based on the rules of the first co-operative in Hjedding. By 1890, the number of co-operative creameries had grown to 700, almost 1,000 at the turn of the century, and over 1,400 by 1935 (Neilsen and Ullum 1989). The rules developed for Hjedding were adopted throughout Denmark by the co-operative creameries. These included: one vote for each member, an obligation on members to deliver all their milk to the dairy, joint and several liability and sharing of

Figure 7.1 Spread of Danish Dairies 1883 - 1933



profits according to milk quantities delivered. The dominance of co-operative dairies ensured the industrialisation of dairy processing preceded under a producer-led accumulation regime.

The success of co-operative creameries was aided by Grundtvigianism (the philosophy and social ideas of Bishop Grundtvig that particularly appealed to rural people), which emphasised the individual's responsibility towards the community. The Bishop promoted and supported the growth of folk high schools, a supplementary education for rural people, which taught a range of subjects with an emphasis on character building; by 1880, 65 schools with 4,000 pupils were in operation (Ravnkilde 1989). Out of this Danish rural milieu emerged a class of confident, well-educated medium-sized farmers who played a central role in the foundation and development of dairy co-operatives. However, the financial imperative of medium and smaller farmers competing with the larger manor farms in quality and price received for butter was also a factor in the development of the co-operative creameries at this time (Neilsen and Ullum 1989). The combination of rural values, need for a suitable organisational form to pool resources, and the availability of technical innovation that required some economies of scale, left rural Denmark a fertile place for the growth of co-operative dairies.

However, co-operatives also faced difficulties. They had difficulties in dealing with some private traders; in particular the prices received by the co-operatives from the traders were the subject of an intense dispute for several years. The spread of disease through the skim milk returned to farmers was also a severe problem. The introduction of pasteurisation in the late 1880s helped to address this problem (Neilsen and Ullum 1989). Also a feature of the Danish industry from an early stage was the close relationship with science to address practical and technical problems that arose for the industry. The co-operatives were instrumental in setting up the Agricultural Research Laboratory, which was funded by the government, and close co-operation and communication between scientists and the industry led to continuous improvements, particularly in matters to do with quality of milk and butter (Neilsen and Ullum 1989; Daly 1991). The state continued to fund research

for the dairy industry until it withdrew in 1990; due to structural concentration, it was felt no longer necessary to fund such activities (Mortensen 2000).

The industry also quickly developed a network of national organisations to support and promote its common interests. The dynamism of the industry left little role for the state to fulfil. In 1888 the first Danish butter export society was founded and in 1899 the Federation of Danish Co-operatives, representing all co-operatives in Denmark, was established. In Ravnkilde's (1989) view, co-operatives used their influence well, by taking the lead in issues such as disease and quality control and adopting voluntary standards and later securing national action through legislation if necessary. A good example of this is the "Lur" brand, a quality and export control stamp for butter backed up by stringent regulation. It was adopted on a voluntary basis initially, before being codified in legislation in 1906. It became a well recognised brand for quality butter on the British market (Ravnkilde 1989; Neilsen and Ullum 1989).

Trade unions, representative associations and training infrastructure for employees were also set in place from an early stage. The associations of dairy managers were founded in 1887, the Dairymen's Association in 1907, and a special dairy training college was founded in Dalum near Odense in 1886. Interestingly, dairymaids dominated dairy work until the 1880s, but when the industry moved from farm to factory men took over as skilled dairymen. In 1912, the various dairy associations combined to form the Danish Dairy Board (DDB); its role was and still is to represent the industry to government and maintain the competitive edge of the Danish dairy industry (Ravnkilde 1989; Thaysen 1998). In 1919, the agricultural council was founded; this was and still is a joint national representative body for farmers and co-operatives with all key organisations represented. Therefore, a comprehensive non-governmental organisation was in place, encompassing the whole industry, by the early 20th century. The hegemony of co-operatives then became well established, revolving around the co-operatives and their representative organisations, with the state playing a minor role, as pointed to by Jensen (1937) earlier last century:

*“In general it must be said that the state has not done much for the technical and economic development of Danish agriculture ... the initiative in development has always come from agriculture itself”*

Jensen (1937, 178).

The early development of dairy co-operatives was successful: co-operatives quickly grew in number, Danish butter was successful in export markets, and a strong organisational infrastructure developed around the industry. Bjorn (1998) believes the success was due to favourable economic conditions for butter on the English market, the development of the centrifuge, which made common treatment of milk from different farms possible, and the personal liberation of farmers as exemplified by their strong involvement in local government and local administration. Svendsen and Svendsen (2000) view the growth and development of dairy co-operatives in Denmark as a build up of a stock of social capital. The success and spread of dairy co-operatives is linked to three core elements – profit, democracy and trust – in combination with entrepreneurship.

In comparison, the Irish industry did not have the same cohesiveness to tackle problems through collective action: it failed to adopt Danish co-operative rules; it was unable to organise a quality control scheme; and it had a very top down driven co-operative movement (O’Rourke 1999). Without the explicit rules for dairy co-operatives, supplies of milk for Irish co-operatives were not guaranteed as in Denmark; therefore suppliers switching milk supply between co-operatives was a problem. Also, financial responsibility rested with a few individuals, who invested the initial share capital, compared to joint responsibility of all members in Denmark. The representative organisations and the state implemented and enforced regulations in the Danish industry, especially in the important area of quality control, whereas they were generally lacking for the Irish industry. Growth in the Danish industry was spontaneous and bottom up and, therefore, more soundly based. Unlike Ireland, it was not the result of promotional work of a few individuals (Daly 1991). This independence of the Danish co-operative movement, is stressed by Jensen (1937):

*“The Danish co-operative movement was independently developed. It was planned and developed by farmers themselves independently of events in other countries and without any outside guidance or support”*

(Jensen 1937, 319).

The Danish dairy industry was industrialised predominately under producer led-accumulation. The accumulation system was deeply embedded locally and grew spontaneously out of the local milieu. The state played a minor role in supporting the industry, but the main initiative and drive came from the industry and the organisations, which developed around the industry. However, the industry was closely linked to the UK and highly dependent on it for its exports.

### **7.3 Consolidation and Difficulties 1900-1970**

The Danish dairy processing industry continued to grow and prosper in the early part of the 20<sup>th</sup> century. However, as the industry was very dependent on its main UK export market, its fortunes fluctuated with international cycles of prosperity and recession. In times of difficulty, the Danish government did intervene to support the industry, with the burden of support shifting onto the domestic consumer. There is, therefore, a history of the domestic market subsidising exports in the Danish dairy sector.

During the First World War, Denmark stayed neutral and managed to maintain exports of agricultural products to both Germany and Britain. Trade continued to expand after the War but severe problems emerged in the economic depression of the 1930s. As a consequence of the international economic depression, Germany retreated into protectionism and Britain imposed import duties on Danish butter exports, with the result that exports declined. In response to the difficulties, the Danish government negotiated an Anglo-Danish commercial agreement with Britain in 1933. The Treaty had negative consequences for butter exports, with the level of exports reduced to the advantage of New Zealand. The Danish government introduced a marketing quota system to control the supply of products for exports. Export boards were established to regulate this system for

dairying and a butter and a cheese export board were established (Newbury 1980). In addition the government also introduced subsidies on butter and liquid milk on the domestic market. Levies were imposed on butter and liquid milk for domestic consumption to maintain a minimum price. The receipts from the levies were distributed to milk producers (Tracy 1989). This type of state support and intervention was a new departure for the industry (Ravnkilde 1989).

After 1935, the number of dairies began to decline, principally due to mergers between existing dairies. A number of factors facilitated increasing scale. Technical developments permitted larger scale plants to operate. Transport and roads improved, allowing the milk sheds of individual dairies to increase beyond the previous limit of horse-powered transport (Neilsen and Ullum 1989). By 1914, co-operatives handled 85% of all the milk and privately owned dairies concentrated on the home market, while co-operatives exported butter principally to the UK market. The dairy industry was closely linked with the bacon industry through the supply of a cheap food source: skim milk returned to farmers was used to feed pigs on the farm. However, in contrast to Ireland, Danish co-operatives remained highly specialised, with dairy co-operatives solely focused on milk processing (Ravnkilde 1989). Separate co-operatives developed for bacon and eggs.

During the Second World War, Denmark was occupied by Germany: inevitably, exports were redirected to Germany. After the war, controls were no longer needed because of food shortages throughout Europe. In 1950, the government turned the export control boards over to the industry. Independent boards were set up with representatives of co-operative and private dairies. The boards negotiated with Danish and foreign governments and, to varying extents, agreed minimum prices and export levels. The boards also operated stabilisation funds to reduce fluctuations in producers' returns. The boards were represented to the government through an Agricultural Council. At this time Denmark was a strong advocate of free trade and proud of its unsubsidised industry.

After the Second World War, and until the late 1950s, the industry prospered and prices on exports markets were strong. In the late 1950s, the price of butter on the British market

declined and Danish exports suffered; for example, the value of butter sold by the industry declined from 1,148 million Kr. to 732 million Kr. between 1955 and 1958 (Bjorn 1982, 312). However, in this period the market for cheese had grown particularly in Europe and the industry increased its production and export of cheese to meet the demands of this growing market (Mortensen 2000).

The 1960s were difficult years for the industry. The European Economic Community (EEC) was putting in place the Common Agricultural Policy (CAP); Denmark had stayed out of the EEC because of its strong economic ties with Britain (which also stayed out of the EEC). As a result, from 1960 to 1972, Denmark's share of the European food market fell from 25% to 10%, to the advantage of the Netherlands (Ravnkilde 1989, 114). In 1958, the value of agricultural exports from the Netherlands and Denmark to the later nine countries of the EU was very similar: but by the early 1970s, the Netherlands had opened up a sizeable advantage in exports (Tracy 1989). The market access problems for traditional cheese and butter markets in West Germany and Italy were acute (Mortensen 1998), resulting in a decrease in domestic milk production. The industry sought to diversify its export destinations by focusing on alternative markets in the Middle East, especially the Arab Gulf states. Total milk production declined from 5,084 million Kgs in 1955 to 4,414 million Kgs in 1972 (see Table 7.2). The Government intervened to support production, particularly in the late 1960s, until Denmark joined the EU (Mortensen 1998). Levies were again imposed on dairy product sales in the domestic market and the proceeds channelled back to the dairies and ultimately to the producers (Tracy 1989). Basic food prices were tied to the export average and higher prices were permitted on products sold on the home market up to a fixed ceiling.

In this period, the industry maintained its strong links with the UK. Protectionist policies arising out of international recession changed the regulatory framework to help support the industry. Whereas up to the 1930s the industry operated independently, after this time direct intervention by the state was used to support the industry. The domestic consumer, through higher food prices, bore the cost of the intervention. Producer-led accumulation

continued to dominate the industry; however, there had been some concentration of capital in the industry.

#### **7.4 The Emergence of Mejeriselskabet Danmark Foods (MD Foods) 1970-1996**

EU membership in 1973 was very significant for the Danish dairy industry: it gave the industry access to the EU dairy markets, which had been closed to it for a decade. It also gave the industry access to export refunds, that is to say financial supports for the export of dairy products to third countries outside of the EU (Mortensen 1998). Following the accession of Denmark to the EU, milk production increased: from 1972 to 1984, Danish milk production increased by 14%, in common with milk production in all the EU states.

In Ravnkilde's (1989) view, rationalisation of the industry was held up in anticipation of EU membership and, therefore, concentration of the industry began to accelerate after accession to the EU (Table 7.2). The dramatic reduction in the number of dairy co-operatives between 1955 and 1992 can also be viewed as an erosion in the social capital of rural Denmark which took 80 years to build up as a public good (Svendsen and Svendsen 2000). Up to this time, most local dairy co-operatives were producing butter, cheese and liquid milk for local consumption and selling butter for export through Butterdane. Privately owned dairies were more home-market orientated, with a few playing a key role in the export of cheese specialities. The multitude of enterprises worked closely together through the Danish Dairy Federation on industrial, quality, research and promotional issues. In the 1960s and 1970s, mergers were commonplace, leading to more specialised dairy factories. They were calls for one single national dairy to combine all operations from processing to marketing. In 1970 "Mejeriselskabet Danmark" (Dairy Company Denmark) was launched with the aim of being one dairy for Denmark; however, because of stiff opposition, it began only on a regional basis in West Jutland (Ravnkilde 1989).

**Table 7.2 Structural Development of Danish Dairies 1955-1996**

Number	1955	1972	1982	1992	1996
Co-operative companies	1256	261	127	25	19
Private companies	224	87	60	38	29
Total companies	1480	348	187	63	48
Raw Milk Input (Million Kg)	5,084	4,414	5,017	4,377	4,495

Source: Danish Dairy Board (1997)

A contributing factor to structural change in the industry was the deregulation of the milk market for Copenhagen and other cities and towns after entry to the EU. From 1940 to 1971, individual dairy companies had a legislated monopoly to supply milk to particular towns and cities in Denmark. As a result, there was little structural development in liquid milk dairies in this period. In preparation for entry into the EU, this system was abolished in 1971 and it was now open for other dairies to enter these markets, in particular the lucrative Copenhagen market. Initially there was co-operation between Jutland Dairies, the emerging Dairy Company Denmark (later renamed MD Foods) and the Copenhagen dairies. However, Dairy Company Denmark sought a greater share of the market and, when this was blocked by the other liquid milk dairies, a price war ensued (Buksti 1982). A strong position in the domestic market was important as this market was stable and generated better returns than the export markets (Buksti 1982).

Out of this struggle for control of the milk market and continuing mergers of the smaller dairies, Dairy Company Denmark emerged as the dominant company in the industry (see Table 7.3). In 1988, Dairy Company Denmark was renamed MD Foods and began to internationalise its activities (see section 7.5). In the late 1980s, conflict over domestic market share and milk suppliers developed between MD Foods and Klover Maelk<sup>31</sup>. As a result of the competition, both companies had to transport large volumes of milk across the Great Belt in 1992. Milk producers became concerned at the waste of resources and inefficiencies that arose from this intense competition. After some talks, a binding agreement was reached between the two co-operatives in 1992; by 1996 this co-operation

<sup>31</sup> Klover Maelk, the second largest dairy co-operative in Denmark, which focuses on the home market, accounted for 16% of the national milk supply in 1998 (Thaysen 1998).

became closer and the companies co-operated in building a new dairy processing plant to serve the home market. In effect, there were no longer any significant competitors for MD Foods in the domestic market.

**Table 7.3 The Development of MD Foods**

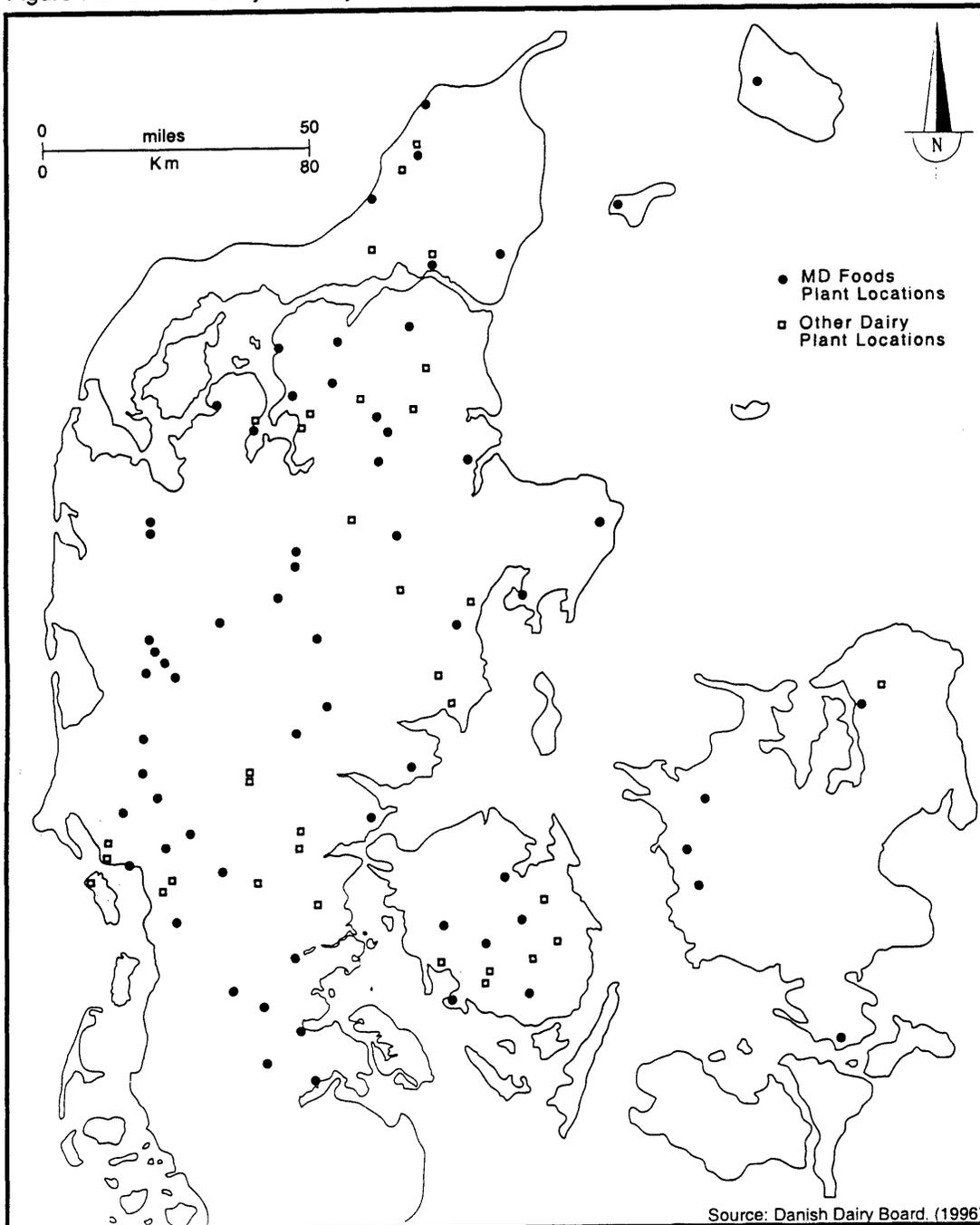
Year	Highlight
1963	Concept of a nationwide dairy emerges for 1 <sup>st</sup> time
1970	Mejeriselskabet Danmark (Dairy Company Denmark) is founded.
1973	Denmark joins the European Community
1980s	Rapid domestic growth, % of national milk supply grows from 28% in 1980 to 66% in 1990 through mergers and acquisitions.
1988	Mejeriselskabet Danmark changes its name to MD Foods.
1989	MD Foods establishes MD Foods International.
1990	MD Foods International acquires UK's fifth largest dairy (Associated Fresh Foods).
1992	MD Foods and Klover sign a binding co-operation agreement.
1993	Plan to diversify and redirect cheese exports implemented.
1995	MD Foods signs a co-operation agreement with the Swedish dairy company Arla.
1996	MD Foods and Klover co-operate on construction of a large new dairy.

Source: Compiled by the author from MD Foods publications

By the mid-1990s, MD Foods had emerged as the dominant company in the Danish Dairy industry. It controlled almost 75% of milk supply and, apart from one other small private company, dominated Danish dairy exports. Accompanying the concentration of the industry had been the rationalisation of the production facilities of the industry (see Table 7.4 and Fig. 7.2). From 1988 to 1997, the number of butter processing plants declined from 148 to 20 and the number of cheese plants declined from 168 to 63. By late 1990s, 80% of Denmark's cheese was produced by MD foods: 50% of this was produced at 4 large modern specialist cheese plants. However, the relatively high number of cheese plants continued to operate because, although rationalisation had closed a large number of smaller, older cheese plants, there had been a growth<sup>32</sup> of small enterprises producing

<sup>32</sup> A recent development in the Danish dairy industry has been the growth in organic milk production and the sale of organic products. Organic milk now accounts for 7% of milk produced, 18% of liquid milk consumed in Denmark and 3% of cheese and butter (Thaysen, 1998).

Figure 7.2 Danish Dairy Industry 1996



farmhouse cheeses, many of them based on organic milk production (Mortensen 2000). An important factor in the decline in the number of production plants in the industry had been the MD Foods policy of rapidly implementing changes once a dairy was taken over (see Table 7.5).

**Table 7.4 Danish Dairy Industry Butter and Cheese plants**

Number	1981	1985	1990	1995	1997
Butter Processing Plants	148	69	34	57	20
Cheese Processing Plants	168	123	86	66	63

Source: Danish Dairy Board

**Table 7.5 Rationalisation of Dairies Merged with MD Foods 1970-1995**

Merger	No.	% of Total Merged
Dairies closed immediately on merger	67	34
Dairies closed within 1 year after date of merger.	16	8
Dairies closed 2-5 years after date of merger	31	16
Dairies closed 6-10 years after date of merger	20	10
Dairies closed after 10 years of date of merger	20	10
Dairies not closed by 1995	45	22
Total dairies merged	199	100

Source: Derived by author from Vedholm (1995)

During this phase, MD Foods emerged as the main agent in the concentration of capital in the Danish industry, transforming the industry from a scattering of locally-based organisations to a large conglomerate dominating the industry. This was not a smooth transition, as conflicts with other dairies have emerged along the way. Despite the concentration of capital, producer-led accumulation continues to dominate. The state has a relatively minor role to play in the regulation of dairy markets as the EU framework has superseded the role of the nation state.

## 7.5 Global Links

Since Denmark joined the EU in 1972, its dairy industry has seen dramatic structural changes, as already referred to above. In addition dramatic changes occurred in the products and destinations for its exports. As previously discussed, butter had been the most important product for the industry, but cheese had increased in significance since the 1950s. This trend continued into the 1970s and the industry built a large export market for Feta cheese in the Middle East, especially in Iran. The technology to manufacture Feta cheese had been developed in Denmark in the early 1970s by APV (a food engineering firm), in conjunction with some dairies. The export of Feta to the Middle East was dependent on EU export refunds for its economic viability.

In the mid-1990s, the GATT agreement, with its limitations on export volumes and support levels, presented a serious problem for the dairy industry (see Chapter 5.2). The agreement meant that Danish cheese exports outside the EU (to countries such as Iran) could no longer be supported by export refunds. Since at this stage MD Foods was the dominant exporter of dairy products in Denmark, the changes posed a serious challenge for the company. Anticipating the GATT agreement with its negative consequences for cheese exported to third countries, and fearing the political instability in its major markets, the industry reoriented its production and changed its market destinations to more value added cheeses within the EU. For example, in the 1987, the industry exported 88,000 tonnes to the Middle East and 75,000 tonnes to the EU; by 1997 this had changed dramatically to 163,000 tonnes to the EU and 34,000 tonnes to the Middle East (see Table 7.6).

Not only had the cheese to be redirected from Middle East to EU markets, but the type of cheese produced also had to be changed to more specialised added value cheeses (e.g. Danbo, Samsøe, Danablu and Esrom). The redirection of exports is regarded as a successful strategic reorientation by MD Foods. The change also posed a serious challenge for the employees in the industry to adapt to new technology and new products. The supporting framework for education and training was important in facilitating retraining and reeducation of the workforce (Kristensen 1998).

**Table 7.6 Danish Cheese Exports by Market Areas 1987-1997 ('000 tonnes)**

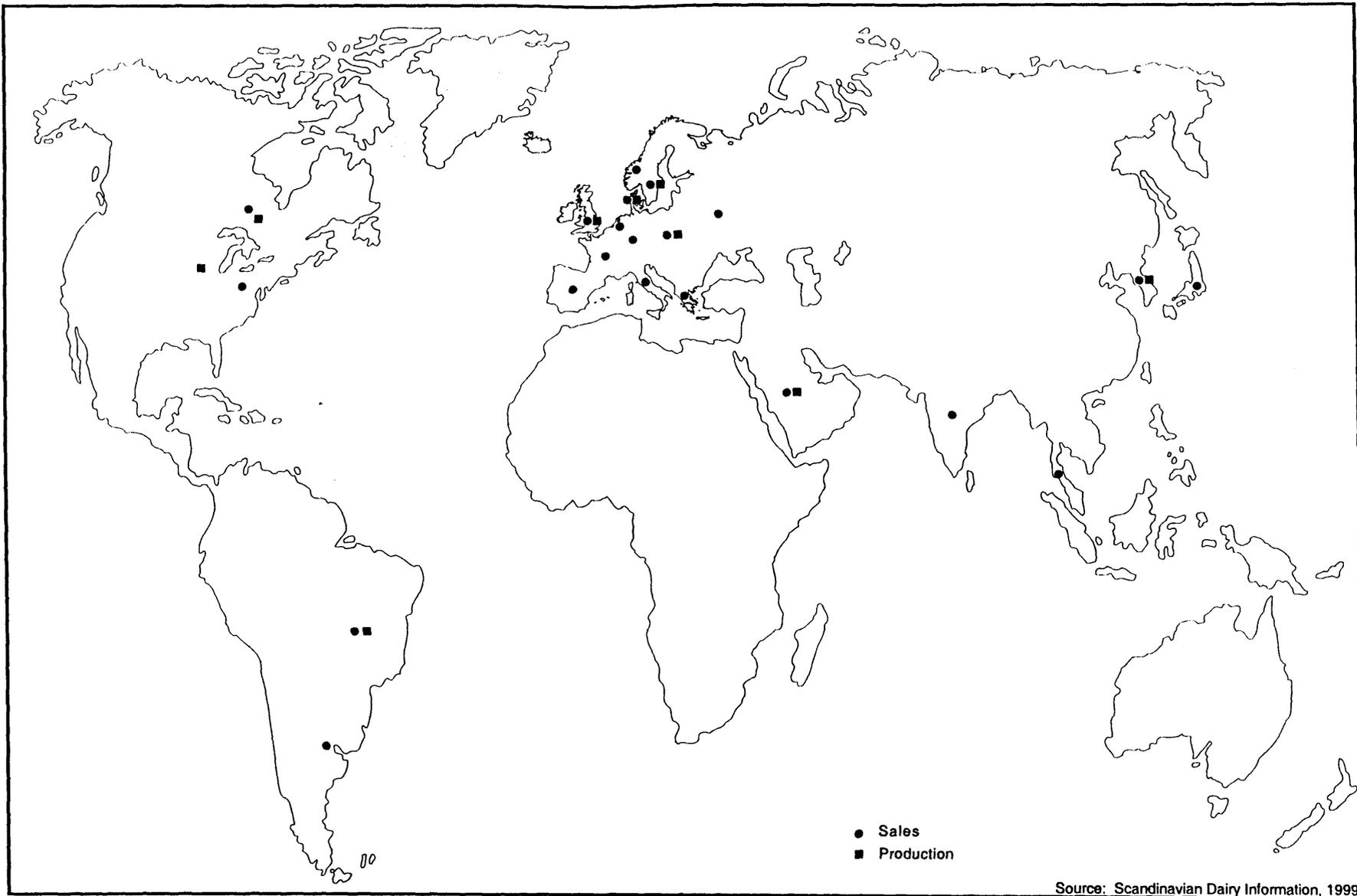
Destination	1987	1992	1997
EU	75	97	163
Rest of Europe	4	9	15
Africa	17	13	2
North America	13	15	13
Central and South America	1	3	3
Middle East Asia	88	74	34
Rest of Asia	12	15	16
Oceania	2	2	2
Total	212	228	248

Source: Mortensen (1998)

Until the early 1990s, MD Foods, which was the principal exporter of dairy products in Denmark, exported its products to foreign markets via foreign wholesalers. Over the last 10 years, there has been a significant change as the Danish industry has internationalised its activities to a greater degree. A study by Tozanli (1997), on restructuring operations by European dairy enterprises, shows that from 1985 to 1995 Denmark had 25 restructuring operations (out of a total of 768 for all EU countries). Restructuring operations included takeovers, acquisitions, mergers and joint ventures. Of the 25 operations for Denmark, 7 were in other EU countries and 4 were in the rest of the world (the remaining 14 were within Denmark). Comparing the Irish and Danish activity with other EU members, Tozanli (1997, 190) describes them as “relatively active in Europe as well as outside Europe with an accelerating movement since the beginning of the 1990s.”

In 1989, MD Foods established MDI (MD Foods International). It was established to develop their international activities and was 51% owned by MD Foods and 49% by institutional investors (Boon 1998). As part of their strategy to establish close links with key European customers, in 1991 MD Foods introduced a key accounts management system to establish closer links with Europe’s 40 leading retailers (ABN-AMBRO 1996). Since then MD Foods has utilised different internationalisation strategies in different situations at different locations (see Table 7.7 and Fig. 7.3).

Figure 7.3 MD Foods International Activities 1999



Direct exporting is the most widely geographically used strategy; sales subsidiaries are used in the more important markets, for example Germany; joint ventures are used in a number of cases where local knowledge, expertise or access to resources is required. For example in the case of the US, the joint venture with White Clover has been used to overcome restrictions that have arisen as a result of the GATT agreement. In the UK, an acquisition strategy of production and distribution facilities has been used. MD Foods investment in the UK has been difficult; they made losses for a number of years and have been criticised for continuing to operate the acquisitions. A significant strategic co-operation agreement exists with Arla, the largest Swedish dairy company; the two companies co-operate closely on the development of their Scandinavian operations. While MD Foods has internationalised and has production in several parts of the world, compared to the large multinationals it is regarded as a regional rather than a 'global' company and does not have any strong "world brands" (Bijman 1998).

A smaller privately owned company, Tholstrup Cheese, has also internationalised its activities, with exports accounting for 85% of total sales. MD and Tholstrup are the only two dairy companies with strong international interests; the remainder of the companies are concentrated on the domestic market. Tholstrup, the speciality cheese company, has not acquired production facilities abroad, but established sales offices in key markets to export its product from Denmark. Tholstrup is regarded as a key innovator in the Danish dairy industry (Grunert, Harmsen and Goransson 1997).

The Danish industry has become more integrated in the global dairy industry through various internationalisation strategies. The increased concentration of capital has facilitated this change, enabling MD Foods to have the necessary economies of scale to gain a significant presence in foreign markets. However, a dilution of producer-led accumulation was required to finance internationalisation activities, while the dilution was confined to international activities only. The industry took advantage of the EU regime for dairy products to supply Middle Eastern markets. However, the onset of global

regulation through GATT necessitated a reorientation of the industry towards internal markets in the EU. In contrast it resulted in a different strategy in the US, where MD Foods entered into a joint venture with a US dairy to maintain their market position.

**Table 7.7 Internationalisation of MD Foods**

Internationalisation Strategy	Geographical Extent	Example
Conventional export	Over 100 countries	UK - Via own companies in the UK.
Sales subsidiaries	20 countries	Germany - As MD's largest consumer food market, a number of sales offices are required. MD Deutschland at Dusseldorf and regional offices at Hamburg and Nuremberg.
Joint ventures	Canada, US, Brazil and Scandinavia	US - With White Clover Dairy in Wisconsin who produces creamy havarti with MD's technology while MD Foods sells and markets the joint products.
Production facilities	Korea, Saudi Arabia and UK	UK - Acquired a number of dairies in the early 1990's and MD is now 3 <sup>rd</sup> largest supplier of liquid milk in UK accounting for 16% of the total. Activities of the acquired dairies were rationalised.
Strategic co-operation	Sweden	Sweden - MD and the largest Swedish dairy company have adopted a partnership approach to their production and marketing activities for the Scandinavian market. Have set up a number of joint companies to specialise in various market segments. Arla are also examining possibilities for co-operation with Finnish dairy company Valio.

Source: Derived by author from Nielsen (1998)

## 7.6 Conclusion

As in Chapter 6, conclusions are drawn from this empirical review of the development of the Danish industry using Mardens (1992) five elements of the MSR, and the notion of hegemonic groups or coalitions to take account of the socially contested nature of the MSR.

Similar to Ireland, *the type of market and competition* for the dairy industry has evolved from a first food regime model of a state provisioning an industrialising power, to an industry tied to a favourable form of supranational institutional regulation, classically illustrated in the 'feta adventure'. However, the influence of *global regulation* necessitated a restructuring of markets, which the MSR of the Danish industry was able to adapt to. Also, as in the Irish case, *labour relations* do not emerge as an issue in the empirical review.

The stronger community and membership base (than Ireland) of early Danish dairy co-operatives gave them a stronger *financial base*, facilitating rapid growth and development of the industry. As a result, the industry was in a better position to develop and expand throughout the first half of the 20<sup>th</sup> century. Unlike Ireland, foreign capital did not have a significant influence. Opportunities for accumulation by foreign capital in Denmark were much more limited than in Ireland. The cohesive MSR facilitated full utilisation of accumulation opportunities leaving little room for foreign capital. However, the disadvantage of the producer-led accumulation in raising capital for internationalisation became an issue in the 1980s, and resulted in dilution of co-operative ownership in international activities.

From dependency on the UK as a principal market, external links had expanded to include increasing *global trade links* (especially in the Middle East) supported by the CAP market regime. Since the 1980s, internationalisation by the major dairy Danish company - MD Foods - has considerably expanded global trade and market links.

Compared to Ireland, *state influence* has been less important for the Danish industry. The state, however, did play a legitimating, enforcing role for the industry, responding to the influence of industry organisations. Membership of the EU prompted the deregulation of the monopoly of urban dairies and facilitated the ‘feta adventure’, which brought about the growth of a major dairy as a dominant player. Similarly to Ireland, membership of the EU since 1973 has shifted the focus for policy for the dairy sector away from the national government to the EU. As with Ireland, national level regulation relating to dairy markets has become secondary to supranational regulation through the CAP of the EU.

In terms of *hegemonic groups or coalitions*, industry organisations (such as the Danish Dairy Board) have been very influential in the development of dairy processing. However, compared to the Irish industry, there appears to be a more cohesive MSR. As a result the state has played a lesser role and the industry has been able to develop. As the industry has developed, particularly since the 1980s, one dairy - MD Foods - has become dominant. Compared to the Irish industry, producer-led accumulation is deeply embedded in the Danish industry, so also is the ability of the industry to act collectively (see section 7.2). This may arise from a more cohesive MSR, which seems prevalent in the Danish industry, and is a function of the particular cultural and political context, which developed in rural Denmark. A more cohesive MSR seems to exist in which companies co-operate and work together in industry organisations. The combination of these two factors has facilitated the concentration of capital in the industry and has resulted in less direct intervention by the state. In turn, the concentration of capital has enabled the largest company to internationalise and have ambitions to be a significant European dairy company. This has been done while largely remaining within a producer-led accumulation framework.

As in Ireland, different elements of the MSR have been important at different times in the industry. In the early stages, and through much of the 20<sup>th</sup> century, the *regulatory context* has been central for the industry. However, it was not through the state but through industry organisations that this context has been set. In more recent times, *policy at the supranational level* (that is the CAP of the EU) has been very important in influencing the structure and global links of the industry. Since the mid-1980s, *global links* have been

very significant in increasing the drive for economies of scale and concentration in the industry.

The MSR for the Danish dairy processing industry is examined in further detail in Chapter 9, based on the key actor interview material and relevant secondary data.

## **Chapter 8**

### **The MSR for the Irish Dairy Industry**

#### **8.1 Introduction**

This chapter specifies in more detail, the changing form of the Mode of Social Regulation for the Irish dairy processing industry. By drawing on original interview data, it creates new insights into how the MSR changed from the 1970/80s to the 1990s (see Table 8.1). At the global level, for example, supranational dominance of dairy products trading by trading blocks gave way to a liberalising global framework. The highly regulated supranational framework was relaxed to an extent allowing market forces to play a greater role. In the Irish industry, a shift from producer to investor-led accumulation, coupled with increasing adhesion to the global regime, has altered the MSR.

The shift to investor-led accumulation has been a major stimulus to internationalisation, as have increasingly closer links with customers. At the national level, the industry has responded to the growing power of the retail multiples by concentrating capital, broadening the range of products and increasing the emphasis on branding. While there has been some concentration of capital at a national level, from the late 1980s there has also been international concentration initiated by the Irish dairy processing industry. As the focus has shifted internationally, many Irish plants at a local level have become less important as sites of accumulation as the focus has shifted internationally. The outcome of the changing MSR is an industry more closely integrated with the global regime and a shift in hegemony from domestically orientated co-operatives and the Irish dairy board to emerging global food companies.

The changing form of the MSR is discussed in more detail in this chapter, based on Mardens (1992) five elements of the MSR and hegemony. As is evident in this chapter, many of the elements of the MSR are very interrelated. For example, competition in international markets is central to changing global relationships for the industry; changing financial relationships are linked to ownership and accumulation types.

Therefore, discussion of each element overlaps and changes in one element are linked to changes in other elements.

**Table 8.1 Changing Form of the MSR for the Irish Industry**

Level of Regulation	1970/80s	1990s
Global	Supranational domination through trading blocks  Commodity trade	Liberalising trade through GATT/WTO Scale important (protection) Supplier-Customer links Integration into global financial network
Supranational-EU	Protected markets, subsidised trade Supply control introduced  Brussels key decision centre	Protection reduced Supply control continues Disposal measures prominent Separate industry representation in Brussels
National	Retail concentration Reliance on market support Concentration of capital (nationally)  Industry employment growth and decline Turbulent employee relations Producer led accumulation  Intra-industry conflict in "milk wars"	Retail leverage, own brands. Shift to dairy ingredients Domestic capital seeks national and global opportunities Mergers and job losses Partnership agreements Move to investor-led accumulation Disposal measures prominent Kerry hegemonic (Investor-led accumulation)
Local	Producer led accumulation International market links via Irish Dairy Board  Local plants focus of accumulation  Local company/brand loyalty	Producer or investor-led accumulation Direct market production International links or links via Dairy Board Local framework-Employee relations Local or global plants focus of accumulation Community basis-moderating globalising influence Local company/brand loyalty

Two important aspects of hegemony have emerged. First, at the conceptual level, there is the type of accumulation (producer-led or investor-led), which has emerged as a central issue of this thesis. Second, there is the issue of the actual changes in the hegemony of the MSR of the Irish dairy processing industry. The first is central to the understanding of the changing MSR for the Irish dairy processing industry and is,

therefore, discussed at the outset of the chapter. The second is discussed at the end of the chapter as it is closely linked to the outcomes of the changing MSR.

## 8.2 Hegemony - From Producer to Investor-led Accumulation

The type of accumulation has emerged as a key aspect of the MSR in this study. It is part of the hegemony element of the MSR, because it is bound up with the struggle for the benefits of accumulation in the Irish dairy processing industry. However, it is also closely linked to the financial relations and global links elements of the MSR. Changing financial needs, driven by the need to internationalise and integrate globally, are closely linked to the shift in accumulation type, which is considered in more detail in this section.

In the 1970s and 1980s, the industry was fully in co-operative ownership and domestically orientated; it operated almost exclusively within a domestic financial framework. A ‘producer-led accumulation framework’ existed with a principal focus on maximising returns to the farmer supplier through the best possible milk price. The co-operative structure, with weak equity base and little incentive for shareholders to invest, relied on outside sources of funds. Up to the mid-1980s, the industry used the domestic banks as the principal source of debt financing; this was required for capital expenditure used in replacing, expanding and building additional processing plant. A senior banking executive described it as a standard kind of banking:

*“Banking in the co-operative sector in the 70s and 80s was very much attributable business, it was organised very much on traditional lines. You went down to your Avonmore, Waterford or whatever. You agreed whatever. If you wanted a line of X million pounds, you by and large, basically it was kind of, we’ll review of a years time ... twelve months down the road you sit down formally and review the ...again. And another facility offered. It was very much standard kind of banking.”*

(IRL306)

As the industry was not expansion orientated, its financial requirements were not very significant and straightforward bank debt was the main source of finance. Another senior banking executive referred it as follows:

*“but I mean they would have had what they required for expansion was modest enough and it could be sourced out of debt and so on like that you know.”*(IRL301)

In the 1970s and 1980s, the industry was more locally focused but, as this banking executive points out, it was realised that expansion beyond Ireland would require a broader capital base:

*“Very much different in the 70s and 80s. Localised. I suppose they weren't really looking outwards at that stage, they were the very early days of it. But I think they realised at that juncture that they needed to broaden the capital base if they wanted to go towards globalisation as they call it.”* (IRL306)

As shown in Chapter 6, in the mid to late 1980s several of the larger Irish dairy co-operatives changed to PLC status. In most cases, the co-operatives retained a controlling interest while floating a minority shareholding on the stock exchange (see Tables 8.2 and 8.3). This was a very significant change as it diluted the co-operative ownership of the companies and introduced stakeholders with little interest in producer prices and a greater emphasis on share price and profitability. This shift in direction instigated by the management of the companies and passed at special EGMs is a move from ‘producer led accumulation’ to ‘investor led accumulation’. No longer is the farmer-supplier-owner fully in charge; the companies must also meet the profitability and growth objectives of the stock market.

**Table 8.2 Evolution of Irish Dairy PLC Companies**

Year	Change
1986	Kerry Co-operative changes to Plc status, Kerry Co-operative retained 51% of the Plc shares
1988	Avonmore Co-operative changes to Plc status, Avonmore Co-operative retained 51% of the Plc shares
1989	Waterford Co-operative changes to Plc status, Waterford Co-operative retained 51% of the Plc shares
1989	Golden Vale Co-operative changes to Plc status, All shares on stock market <sup>33</sup>
1989	Donegal Co-operative changes to Plc status
1996	Kerry Co-operative stake in the Plc reduced to 39%

Source: Company Annual Reports

**Table 8.3 Irish Milk Supply controlled by PLC Companies**

Year	% of Milk Supply
1985	0
1990	49
1995	50

Source: Derived from ICOS Annual Reports

While the change to PLC status has increased the industry's options in sourcing funds, the PLC companies have continued to use debt as the preferred source of finance, because debt has been a more financially attractive source over the last decade. As one banker puts it:

*"...for the most part they have relied on debt to expand their businesses. Some of the PLCs have obviously come to market at times to raise equity which is good because I mean, you know, obviously if they can gear up they can borrow more money, the more equity they have. But, you know, having said that even the PLCs who have raised .... amount of money in equity, most of them are highly geared and prefer to have debt." (IRL301)*

<sup>33</sup> All shares were put on the stock exchange, but only 12.5% were available for sale to institutions at that time. However, since 1989, some farmer shareholders have sold their shares and less than 50% of shares are now owned by supplier-farmers.

While the PLC companies have not used the stock market as a source of funds to a great extent, the change to PLC ownership has exerted tremendous influence over the development of the companies. Under the 'producer-led regime', milk price was the main focus and measure of the co-operatives performance. In contrast under 'investor-led accumulation' the stock exchange, through fund managers and stockbrokers, drives the companies to grow and increase profits through close scrutiny of their performance, which is ultimately reflected in share price. According to one banker:

*"the market will want to see performance coming through, the share prices to perform well you know. There are no formal constraints but informally pressure if you like to make the right decisions and what have you."* (IRL301)

The shift to investor-led accumulation has put the companies in the same league as other publicly quoted food companies in Europe. Decisions, strategies and performance are compared and expected to be on a par with these companies. As a senior food analyst commented:

*"once they turned PLC they became obliged to listen to what the markets were saying about their businesses and taking all that into account when they were developing their businesses so they were then in the same ball park and being assessed and compared with other quoted food companies in Europe particularly. The decisions they took from there on were to a certain extent being guided by how those decisions stacked up compared to the strategies of other companies."*  
(IRL303)

The change to PLC ownership has been a major driving force behind much of the growth and acquisition by the Irish industry since the mid 1980s. A senior financial executive (in a fully co-operatively owned company) commented on the pressures that arise from PLC status:

*“you have to be more profit path orientated, the market demands maybe 20% growth every year, if you don't get it I mean take the example of Waterford or Golden Vale who produce profits in a year but are battered because the levels of profits are down from the previous year. They still make £20 million or whatever but it is not up to market expectations, they did not grow like they said they would. It is a different measure. Not necessarily a better one.” (IRL106)*

With the limited size of the Irish economy and the presence of several competitors, the result of this pressure has been a focus on growth outside of Ireland. A senior food analyst elaborated on this:

*“I think it has been very important to them in terms of growing their business internationally, the PLCs have, by coincidence or otherwise, have used the money and the access to funds by virtue of their PLC status to go overseas, initially in the UK, as three of them did, or in the case of Kerry, make a number of acquisitions, some in the UK, one small one in continental Europe and two major ones in the US.” (IRL302)*

As well as influencing growth and profitability, the change in status forces the companies to communicate more with the public and in particular with financial institutions, bankers and fund managers. It also places the companies under intense scrutiny, very different from being a traditional co-operative. An analyst with an Irish stockbroker expanded on this issue:

*“you are very much in the public eye once you go PLC and you know if you are say a Dairygold (a co-operative) or one of the smaller co-operatives you might get a few paragraphs when the results come out one or twice a year and that's the end of it. You know if you're an Avonmore or a Goldenvale (PLCs) or whatever you know you get blitzed with publicity all the time because you have to make much more*

*information available to the stock exchange and people are analyzing your company all the time and writing reports about you all the time. It's like being in a fishbowl, you know you're being analyzed constantly.” (IRL301)*

The shift from producer to investor-led accumulation is an important part of the hegemony of the changing MSR for the Irish industry. Investor-led accumulation provided a stimulus and facilitated expansion and internationalisation of the industry. However, it is just one of a number of interrelated elements which contribute to the changing form of the MSR for the Irish industry. Next, changes in the market and competition element of the MSR are examined.

### **8.3 Market and Competition**

#### *8.3.1 Domestic Market and Competition*

For the Irish dairy industry, one of the most significant regulatory influences has been the evolution of a concentrated structure in the retail market. In Ireland, the retail sector has become concentrated and a few large chains dominate access to the Irish retail market. There has been a concentration of capital since the 1980s with the resulting domination of the market by the top three retailers. Indeed, the top five retailers account for over 65% of the Irish market share (see Fig. 8.1).

In response to the concentration of capital and the power of the retailers, dairy processing firms supplying these chains have had to develop strategies to maintain their viability vis a vis the multiple chains. The firms have recognised the importance of strong brands and having a broad range of products. Increasingly, firms seek to broaden the range of products they supply to the retail chains to increase their bargaining power; however, the retail sector is seeking to increase efficiency and reduce costs by minimising the number of suppliers. A senior executive in a large dairy company emphasised the importance of product range:

*"The bigger the range you have the more clout you have with them. R and D is a very high priority in this area as well... .. You need product range innovation, service and then you need .... Relationship comes quite a bit into it, particularly with the multiples"* (IRL106)



Source: Taylor Nelson AGB

Whereas up to the late 1980s, the focus was on increasing market share, currently attention is also focused on reducing inefficiencies and maximising the use of shelf space. A senior buyer for one of the retail chains elaborated on the importance on the efficient use of shelf space:

*"The demands have changed as the retailer has got more control. The retailers have become more professional in controlling the shelf and the shelf space, especially Quinnsworth. If a line is not profitable, they won't give it much space, whereas if a line is profitable, they will give it lots of shelf space."* (IRL600)

As a result of the concentration, the retailer is in a powerful position with the dairy companies, especially when it comes to price, but this strength is effectively counteracted by a strong brand, which can command premium prices. A senior buyer in

another retail chain stressed the importance of brands for companies to maintain a good price:

*“Price to some degree can be very much a hard fought out battle in terms of commodity pricing. If you have pricing in terms of the brands, you can measure the strength of the company by the strength of its brands and also by the strength of its retail price. The stronger the company and the stronger the brand the stronger how consistent the retail price is. That can often be a benchmark to measure other brands against. For instance, a well known dairy spread currently priced at £1.25 other brands will benchmark down from that, own label products will be benchmarked down 15-20% below that.”*  
(IRL601)

The multiples also supply their own label brand products; the penetration of own brand label is a measure of their strength vis-à-vis the food industry brands. In 1994, overall penetration of own label was 27% in the Irish market (O’Connell *et al* 1997). Data for own label penetration in individual product lines is not available; however, the level of penetration varies from retailer to retailer and from product to product. In interviews, retailers indicated own brand sales of products varied from 5% to almost 50% (IRL600, IRL601, IRL602). Referring specifically to dairy products, one retailer commented:

*“Our own brand business would be very high, it would be over 50% of our business would be own brand cheese, we do an awful lot of own brands. Yoghurt wouldn’t be as high..... But our own brand business is growing in that sector because of the influence of outside suppliers coming into the Irish market”.* (IRL602)

While the dairy firms seek to broaden their range, retailers seeking greater efficiency try to restrict the number of suppliers. The focus on increasing efficiency drives for a reduction in the number of suppliers and is a force in increasing concentration in the supplying industry. A senior buyer in a retail chain commented:

*"We need to restrict our suppliers, we need to restrict their range and we need to manage that range better, that's something we as retailers must work a lot harder at, which we haven't been doing, we used to take in lines and just take in lines and open up, we now are monitoring our space, sales to profit, if those lines are not performing they're out, regardless of who they are." (IRL602)*

However, local loyalties and the specific characteristics of local demand works against the rationalisation of suppliers and product ranges and the retailers have to be sensitive to local markets. This frustrates the desire for rationalisation of suppliers, the frustration is evident in the following comment from a senior retail buyer:

*"Yes, a local customer loyalty, if Joe Bloggs is shopping in Nenagh they want to see Nenagh milk there. A fellow in Galway will want to see Oranmore dairies, a fellow in Tullamore wants to see Tullamore dairies, that's a big problem, we don't see ourselves as a company just for Nenagh, we see ourselves as a group, the more products you have, the more variety you have, the more suppliers you have, the more documentation you have." (IRL602)*

From the retailers' perspective, the advantages of scale from concentration of capital are frustrated by the fragmented nature of the Irish industry. Local brand loyalty and loyalty to the dairy companies makes it difficult to rationalise suppliers. A senior retail buyer eloquently elaborated on the issue from a retailer's perspective:

*"look at....you take some suppliers here, they're in the cheese, they're in the yoghurt, they're in the orange juice business, they're in every fecking piece of business, but like, not anyone of them, they're in the spreads business, they're all doing butter, everyone is doing a bit of butter, but with the amalgamation of Avonmore and Waterford now, that's going to shape up a lot of that now, there's a lot of duplication. We'd have four cheese manufacturers, all you need is only one, because*

*of tradition we're dealing with the four, which is wrong, because of tradition and a certain amount of loyalty to those companies that are doing the ..... Brand we're doing them.” (IRL602)*

Domestically, the concentration of capital in the retail sector and its consequences are an important feature of the changing MSR for the Irish industry. Companies have responded by increasing their range of products and placing greater emphasis on branding. Concentration of capital has not been a prominent feature of the Irish dairy industry (see Chapter 6), despite its prominence in the food industry in general (see Chapter 2) and in the dairy industry in many European countries (see Chapter 7).

### 8.3.2 Global Market Links

The context for dairy markets in Europe has been greatly influenced by market and trade support measures of the Common Agricultural Policy<sup>34</sup> and the World Trade Organisation. However, within the context of this regulatory framework, there have been significant changes in the markets and increasing linkages between the Irish dairy companies and the global market - another element in the globalisation of the Irish industry.

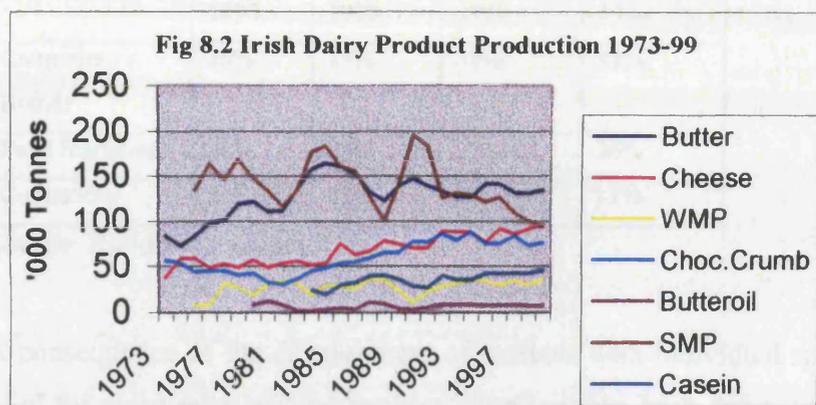
These markets have traditionally been for butter, skim milk powder, whole milk powder, casein and cheese. Throughout the 1970s and 1980s, commodity markets were dominated by standard products such as butter and SMP (see Fig. 8.2). However, the perception of milk as a basis for standard products, such as butter, cheese and powder, has changed to a functional view of milk, as the use of various fractions of milk and its constituents has multiplied. A sales executive in a dairy company identified this change in the market perception of milk:

*“Everybody now talks about dairy ingredients, they don't talk about skim, they don't talk about milk powder; they talk about cheese, they talk about dairy ingredients. If you mentioned dairy ingredients 10*

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<sup>34</sup> See Chapter 5 for a detailed discussion of CAP and GATT.

*years ago, people would have looked at you twice. Now it's the ingredients market you're talking about. It's where the products of the dairy industry can be used."* (IRL101)



WMP: Whole milk powder; SMP: Skim milk powder

Source: Irish Dairy Board (2000)

In response to increased competition, the cyclical nature of dairy commodity markets and the reduction in the availability of market support measures for dairy products, the industry has developed markets for more niche, specialised and customer specific products. For example, sales of commodity products in the Irish dairy board have reduced from 54% to 33% during the 1990s, whereas sales of consumer brands and food ingredients have increased from 26% to 41% and 20% to 26% respectively in the same period (see Table 8.4). In product terms, this means increasing sales of consumer products for example, Kerrygold butter and products to a specification suitable as an ingredient for a specific company show increasing sales. A senior manager in a dairy company commented on this:

*"This is our experience. So the idea of something being put into a bag and flogged all over the world, while that certainly goes on there's no question about that, and there's a percentage every year of Irish products falling into that category, a percentage that has certainly been dwindling every year. And you're now in the situation where the*

*manufacturer produces the product more or less to a personal specification” (IRL108)*

**Table 8.4 Irish Dairy Board Sales Spread by Market Sector**

	1990	1996	1997	1998
Consumer Brands	26%	33%	38%	41%
Food Ingredients	20%	24%	27%	26%
Commodity	54%	43%	35%	33%

Source: Randles (1999)

A consequence of the development of markets with individual specific products is the need for close relationships between suppliers (the Irish dairy industry) and customers that have to be built up over time. Customers tend to require the product (an ingredient for a product down the line) on an ongoing basis, therefore long-term reciprocal relationships are important. The need for long-term relationships at many levels in the company is referred to by a senior executive in a dairy company:

*“We have to gear ourselves to be able to supply their requirements not saying to them, we have this do you want it. That is the way we tackle it and we have. Marketing is only part of it, you have to have a lot of technical back up. They come around and see the plant and get confidence in your systems and ability to deliver their requirements on a regular basis. It is a whole relationship that builds up around that it is not just ... .. Selling to ... .., it is perhaps ... .. or somebody like that selling to somebody at the other side.” (IRL106)*

The processor may have to invest in technology for a specific customer, for example specialised drying equipment is required to dry milk to a specification suitable for use as a coffee whitener. These types of relationships with customers are much more of a co-operative and partnership basis where reliability, quality and service are as important as price. The development of these close relationships is also a means of protection from the competition as mentioned by this senior executive:

*“But there are other products like whey proteins with certain characteristics that other people do not have for example the level and type of demineralisation. The plant we have would be different to a lot of other plants. So, you try and protect if you can through technology some of your markets by being ahead of your competition in that area.”*  
(IRL106)

Some of the Irish companies that have internationalised have moved into dairy and food ingredients and developed close links with multi-national food companies in food service. The links of these companies to their customers drive further expansion and internationalisation as the companies follow their customers onto new markets. For example, the Kerry group has close links with Burger King and has moved into South America to follow its customer. Kerry’s Chief Executive stresses the opportunities available of following a global customer:

*“Burger King has recently set up operations in Brazil and that as a global supplier to the fast food giant, Kerry had no option but to follow one of its biggest customers to its newest markets. As food companies go global, there are opportunities for ingredient suppliers to follow”*  
(Denis Brosnan, Chief Executive Kerry, Irish Times June 1999)

Similarly, Avonmore Waterford (now called Glanbia) has close ties with a major pizza chain and through its subsidiary in the UK and Europe seeks to grow with its major customer. Links as ingredient suppliers to these kinds of companies, permits these companies to tie into fast growing and profitable segments of the food industry. This point is stressed in a recent annual report:

*“Golden Foods is the largest supplier of pizza cheeses in Europe with a 25% share in the EU market and 50% of the UK market... .. Ongoing growth in pizza consumption across the major European markets provides significant opportunities for Golden Foods”*  
(Avonmore/Waterford Annual Report 1997)

There has been a fundamental change in the nature of the relationship between supplier and international customers in the Irish dairy industry. Up to the mid-1980s, the Irish industry was primarily production orientated, manufacturing the product, which the Irish Dairy Board marketed and sold throughout the world. By the late 1990s, several of the larger Irish dairy companies no longer solely used the Irish Dairy Board for foreign marketing and sales and many that do have much closer relationships with their customers. The markets of the Irish dairy processing industry have changed significantly in the period under scrutiny as a result of the increasing specialisation of customer specification. Relationships between the industry and its customers have evolved into much more complex partnerships. So close is the relationship that some companies follow their customers around the globe into new markets.

#### **8.4 Labour Relations**

Labour relations did not emerge as a significant dimension in the chapters based on analysing published sources and secondary data. However, primary data allows labour relations to be examined in more detail. The form of MSR for labour in the Irish dairy industry is distinctive because of the unique ownership structure, the history of the dairy companies, the particular legislative framework in Ireland, and the particular cultural framework. Together these factors shape attitudes to change in the workplace. The history of the companies is one in which most are a mosaic of the mergers of smaller entities. This history has produced an ownership structure with strong community ties, where workers and farmer owners can have similar or conflicting objectives, depending on particular issues. A traditional type approach to employee relations prevails. There tends to be confrontation between employers and trade unions with trade unions seeking financial rewards for workers for adopting change in the workplace. For example, in return for management seeking a change in work practices, trade unions seek increased payment. This is set in a context of local variation, with particular local arrangements resulting in different outcomes. Employee relations in the Irish industry are considered traditional, robust and confrontational by both trade union officials and by management. This is the type of language used to describe employee relations by both management and trade unions:

*“They're very traditionalist. Trade union minded and I suppose if you want to put one word in it, they'd be hard enough, very hard in employee relations.” (IRL100)*

*“while the relationship between employee and management is quite good, at the management/union level it can be quite difficult.” (IRL105)*

*“that employee relations would tend to be more on the confrontational than on the newer approaches” (IRL200)*

Change is achieved only in co-operation with the trade unions; trade unions are strong and the dairy industry is fully unionised. From the trade unionist perspective, there is a strong feeling that change must cost the company. The solidarity, power, and perspective of unions is evident from the comments of this senior trade union official who had been involved in the dairy industry for several decades:

*“Companies will say to us, oh we're going to do this and we tell them you are not going to do it because you can't do it. And there is a very strong solidarity in terms of the workforce within the industry, very strong traditional solidarity in terms of if push comes to shove and I think the companies are well aware of that... .. It might have taken 5 years for the company to achieve something that it felt was necessary within 6 months, but it happened. We would argue the case that if a company is prepared to come up with enough money, it can get anything in 6 months.” (IRL200)*

In the view of union representatives, the dominance of producer-led accumulation has worked to the advantage of the trade unions. A trade union official described the typical scenario:

*“they are Co-operatives, and up till recently entirely Co-operatives. Frequently that hamstrung the management, particularly the personnel*

*managers, the human resource managers, in that the direction from the Board was frequently 'give them nothing' because the Co-operatives existed to give a good price in terms of the price per gallon back to the farmer and any costs on the production side interfering with that so it would be resisted. However, whenever a strike was being threatened then the Board tended to capitulate because you know that would immediately affect them as producers. So it left the management with very little room to concede and then they would finally have to concede almost everything." (IRL202)*

Many of the Irish dairy companies have evolved from amalgamations in the 1970s of several smaller dairy companies. The underlying geography and history, as set out in Chapter 6, has implications for labour issues, as residues of previous geography reverberate into the present through industrial relations issues. One trade union official elaborated on the issues that result from this:

*"The problem has been the work practices side. Let me explain. If you take milk assembly and the transport side, many of the co-operatives are amalgamations of small co-operatives. Many of the drivers worked for small creameries. The territory of that small creamery is still their territory. So you know, how does the new multi-national corporation deal with these territorial squabbles. So when I say rationalisation of work practices they are as much a product of the history of the development of the co-operatives as industrial relations problems." (IRL202)*

However, much also depends on the specific local regime and regulatory framework. For example, a productivity agreement in Golden Vale (PLC company) has allowed change to be implemented easily whereas in Dairygold (co-operative) there is no such agreement and change is therefore more difficult to negotiate. Local regulatory mechanisms are important in the outcomes at local level. A trade union official commented on the contrasting situations between Golden Vale and Dairygold:

*“there is a very different attitude within the two of them, again a lot of this stems back to old agreements, for example Golden Vale in the early 80's a productivity agreement was concluded which at the time was a very important agreement in that it gave quite an amount of additional pay to people in the industry, over and above what was the industry norm and that really was paid for productivity and flexibility, co-operative operations would all change ongoing after that, so within that context for years now, the change that I described has been happening and has been accepted and people take it that this is part of their productivity payment... .. whereas in the likes of Dairygold, there was no such agreement so you then have to negotiate on sometimes very minute changes and that has certainly resulted in an awful lot of work and some conflict ... ..” (IRL201)*

The means of resolving disputes also varies between companies. The difference between Dairygold and Golden Vale mentioned earlier also extends to different frameworks for dispute resolution. As a trade union official commented:

*“it's years since I had to face Golden Vale management across the table with a third party, whereas with Dairygold it's not uncommon to have a third party involved maybe twice or three times a month and that's because of the issues that are surfacing within Dairygold which have already been catered for by Golden Vale.” (IRL201)*

A trade union official operating at a national representative level also recognised the importance of local regulatory regimes:

*“There are some co-operatives that I am aware of where change has been effected and effective. I mean, I know one particular one where a lot of change took place and this was because, again, people initially drew up a sort of an enabling agreement, in this case it was a productivity agreement... .. A result of that, I think, the*

*enterprise was enabled to pursue the change and, as a result of that, they were able to improve their overall position and profits, and advance in other ways... .. But in other areas, even - and I'm talking about the co-operative itself now, or in the industry itself, there are other co-operatives where it does appear that little change has been effected and where change is effected, it is difficult and it is slow."*  
(IRL204)

The most difficult issues in the 1990s identified by both management and trade union officials related to job reductions, mergers, new technology and changes in work practices. A senior executive (IRL103) and a trade union official (IRL200) identified a key issue-jobs:

*"The most contentious issue from 1990 onwards was probably job reduction either by way of merger or technology."* (IRL103)

*"It'll still be jobs - it'll always be jobs. ... no compulsory redundancies and that should be out there in front as a policy position."* (IRL200)

However, again depending on local regulation, there can be specific issues that relate to a specific workplace. For example, in one company seniority is a very contentious issue, as identified by a senior executive:

*"... one here that causes major trouble is the whole question of seniority in relation to promotions, in relation to leave, that is one that causes lot of problems."* (IRL105)

Whereas in another company, merger proposals, technology changes and flexibility were all difficult issues:

*"we've had already one very large merger, with a second one on the cards, they've brought their own pressures, then you've had the*

*development of new technologies, new processes, to try and stay ahead of the field and they have brought these pressures and that obviously the development of new processes, additional duties, added flexibility needed, employees expect to be rewarded for participating in all of those issues. But there are a number of pressures now that wouldn't have been relevant to this degree a number of years ago.” (IRL201)*

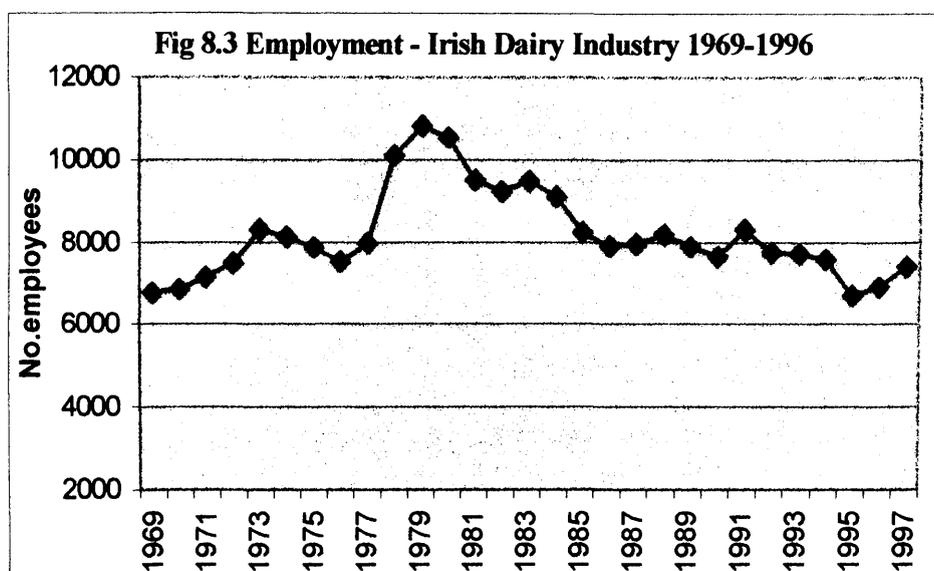
Again, the most difficult issue of the 1970s and 1980s is similar to that of the 1990s, namely jobs. However, the causes of job losses in recent years has been different, for instance namely change in the method of milk assembly, rationalisation of butter manufacturing and an increased emphasis on cost control. A senior executive in a dairy company reflected on the key issues in the 1970s and the 1980s:

*“Several central creameries involved in butter manufacture were closed and the whole lot were centralised into one location which obviously meant that there were massive economies of scale. That was a major contentious issue. Subsequent to that then, creameries closed with the advent of bulkmilk<sup>35</sup>, which was another major area of contention.”*  
(IRL100)

The steady decline in employment in the Irish dairy industry from 1981 (see Fig. 8.3) helps to explain why jobs losses, rationalisation and change were contentious issues since the 1970s. This decline created a negative context within which concentration, change and rationalisation took place. The increase in employment throughout the 1970s until 1981 also hides major operational changes, as milk assembly changed from branch to bulk, while overall employment increased due to expansion of processing facilities throughout the industry.

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<sup>35</sup> Up to the late 1970s, the dominant form of milk assembly was farmers delivering their milk to branch creameries scattered throughout the countryside. From the 1970s onwards, bulk milk collection began to replace the branch system. With bulk milk collection, the milk was collected directly ex the farm by milk tankers. The change from branch to bulk milk assembly systems entailed job losses and branch closures.



Source: CSO (1969-1996)

A change in legislation in the early 1990s made it illegal for workers to take unofficial strike action. This has changed the regulatory framework for employee relations and has been a major factor in reducing strikes, particularly unofficial disputes. Management and union officials believe this has reduced the level of unofficial action and the level of strikes in the industry. This is also borne out by statistics on man-days lost from 1971-1995 (see Table 8.5). Data for the food industry can be taken as a reflection of trends in the dairy industry and a senior executive in a dairy company commented on the new situation:

*“If you have an official picket, then everybody knows that the company can sue if it loses business. That is a major help, the 1990 Act.”*  
(IRL105)

**Table 8.5 Industrial Disputes Ireland 1971-1995**

Man Days Lost due to Industrial Disputes-Ireland 1971-95					
	1971-75	1976-80	1981-85	1986-90	1991-95
All Employment	1,534,999	3,709,180	1,991,394	990,179	492,958
Food Industry	95,803	151,655	248,420	110,938	9,428
Food % All	6.2	4.1	12.5	11.2	1.9

Source: Derived from CSO (1971-1995)

The change to investor-led accumulation has brought with it the introduction of modern management approaches in strategy development, marketing, research and development and finance. A change might also be expected in the management of human resources. However, from interviews, the introduction of new management techniques, such as teamworking, total quality management (TQM), and quality circles was not evident to any significant scale. The traditional approach to employee relations prevails, despite significant changes in other aspects of the industry. One trade union official put it rather bluntly:

*“We haven’t had what we would see as the necessary change in management approaches or the way that management deals with the workforce [they] are treated as having left their brains at the gate when they come in the morning or whether they are going to be taken on board as people who have a contribution to offer.” (IRL200)*

Another official stressed the old methods of industrial relations that persist, in contrast to developments in other sectors:

*“We have these types of agreements with existing companies, and with new companies, then, we have models to produce new ways of working. We have tried to introduce them here and there in the co-operatives but we have not had any great success. So that is why, as I have said, they still are largely based on the old methods of carrying on industrial relations.” (IRL204)*

Overall, employee relations in the Irish dairy industry continue to be traditional and confrontational. Set against a context of declining employment, rationalisation and job losses continue to be the important issues. Changes in the regulatory framework for employee relations has contributed to a change in dispute resolution from action to negotiation. However, local regulation is very important in setting a context for how issues are addressed and resolved.

## 8.5 Financial Relations

As described in section 8.2, the Irish industry has shifted from producer-led accumulation to investor-led accumulation. Associated with this shift is the internationalisation of the companies' activities and increasing links to the global financial network. The shift to investor-led accumulation has given the Irish PLC dairy companies a profile in the global financial community, particularly those companies, such as Kerry, which have successfully grown and expanded through acquisitions, especially in the US. These companies have become the focus of attention for continued growth and acquisitions from the international financial community; this has facilitated the Irish industry linking into and becoming part of the global financial community. These links give further opportunities for expansion. As the companies internationalise their activities, they internationalise their financial operations. Internationalisation of operations combined with change to PLC status has opened up global competitive sources of funds. In contrast to the 1970s and 1980s, the sources and uses of funds by the Irish industry in the 1990s has changed significantly. In interviews, there is evidence of significant integration into the global financial network:

*“there are international, kind of, global payments systems, they tend to link up with the large, they tend to link up with the big American banks. You have that global capability. Giving that payments across all their operations, in the countries that they operate in.” (IRL300)*

*“You also now have an increasing amount of funding provided by private placements and that's a relatively new phenomenon for the Irish*

*market but now fairly widely utilised in the Irish market, and those are funds provided by Pension Funds and Institutions abroad to provide long-term debt, debt source to businesses.” (IRL305)*

*“It's primarily involved in international money markets through the debt markets. They are raising bonds, there are more big international houses, particularly US houses, coming in offering Irish companies low cost long term finance, particularly in the states, and a number of them have jumped on that.” (IRL303)*

*“Take Kerry say for example. Like every bank in London and every bank in New York that see a food and drink company that's up for sale will pick up the phone to Kerry and Kerry's shareholder base is predominantly Irish institutions, you know. Maybe you have one in London but its an Irish company but because its name is known, because it has access to the market in the U.S. on the private placement side, basically there are people bringing them, four or five people bringing them ideas, bringing them acquisition opportunities.” (IRL300)*

An impetus for these global links is the availability of finance at competitive rates. Access to competitive sources of finance drives further growth in these companies. A number of senior bankers (see IRL302 and IRL300 below) commented on global links increasing access to competitive sources of finance:

*“The Irish Dairy industry is I think, raising money on very competitive terms, competitive even on international terms, not just on national terms, and they would be right up there with other large players on the international scene like the Nestlés.” (IRL302)*

*“Its ready access to cheap funding. It's, em it spurs the growth more, the ability to fund the growth ... .... They (Irish dairy plc companies)*

*would command the finest terms, if you compared them to, to the Northern Foods of the world, the Unigates of the world.” (IRL300)*

While links to the global financial community are favourable for the Irish dairy companies, the Irish banking system loses out, as it cannot compete in these global financial markets. As one stockbroker put it:

*“it has negative implications for the Irish banking system because it means that the Irish banking system is lending less money to that sector than it probably did in fact ten years ago, even though the sector has made quantum leaps.” (IRL304)*

These newer more global sources of funds are less onerous on the company by way of conditions further marginalising the domestic financial institutions. However, to maintain their status and membership of the global community they must of course meet the profitability and growth expectations of the stock market. A senior banker stressed the contrast in conditions between the traditional banks and the newer sources of funds:

*“as a rule the pension funds and the private placement funds generally would have less onerous covenants and controls in terms and conditions than would the banking market. So as the capital markets in a sense globalise you are probably going to find a bit of tension between the banking constraints which are traditional and fairly tight and the newer sources of capital which are... .. people want to give money away, they want to get it away without having a whole bureaucracy of credit assessment.” (IRL305)*

Co-operatives are not excluded from such sources, but in the Irish industry the purely co-operatively owned companies are less growth orientated and therefore do not have the same requirement for funds.

*“I think it’s probably open to anybody. Its open to private companies here, so what shouldn’t it be open to cooperatives and in fact the Dairy Board is a cooperative and the Dairy Board has done a major private placement. So there is nothing that actually excludes co-ops.”*  
(IRL305)

Alongside the growth orientated and globally linked PLC companies remain the more traditional dairy co-operatives, with less emphasis on growth and a more regional or national orientation. A banker pointed to the difference between the two parts of the industry in respect of debt and expansion:

*“So you find that the co-operatives if you like, as opposed to the PLC co-operatives, tend to have much, much lower levels of debt, but have expanded much, much less.”* (IRL301)

A senior executive in a co-operative reflected the more conservative approach to debt and expansion compared to that of the PLC companies:

*“We make x amount of profit every year which is reinvested largely in the business, outside of that the finance comes from bank loans. We are in the lucky position that our level of debt is very low compared to many other people in the industry.”* (IRL106)

An important element in the increasingly global orientation of the Irish industry therefore, is the integration of the industry into the global financial network. Financial relations in the Irish industry have evolved from a domestically orientated producer-led accumulation framework to an industry tied into global financial markets and strongly influenced by investor-led accumulation. As a result the industry is linked into global financial networks and is able to avail itself of better rates and better-structured sources of finance, which facilitates further growth and expansion. As a consequence the domestic banking system is no longer adequate for internationalising companies’ requirements.

## 8.6 Global Links

A major feature of the development of the Irish dairy processing industry in the period of the study is the increasing globalisation of the industry. In sections 8.3 and 8.5, the increasing global integration of the industry through market and financial relations have been examined. In this section, based on the interviews with the key actors, global links developed from the internationalisation of the Irish industry are explored as are the barriers that remain to fuller globalisation of the industry.

### 8.6.1 *Global Links through International Accumulation Strategies*

A significant factor in the growing integration of the Irish industry into global regime has been the shift from a domestic to an international orientation in the industry. The Irish industry has internationalised its activities significantly since the mid-1980s (see Chapter 6). In the mid-1980s, accumulation opportunities were limited, given the quota environment and the relatively small scale of the domestic market. The unwillingness of the industry to concentrate capital in any significant way within Ireland left companies in a stagnant position unless internationalisation was pursued. The limitations of the Irish market were seen as a major obstacle to accumulation at the level required by investor-led accumulation:

*“a realisation that the raw material wasn't here to process. You had to move off the island, if you were going to grow and develop. It's a very small place, and a certain amount of rationalisation and amalgamation had been done they just moved outside” (IRL900)*

*“if you don't have an international dimension to it you're talking about a home market of four million people most of whom live on the East coast, it's very difficult to build any sort of a food on the strength of that home market.” (IRL302)*

*“There are opportunities for growth outside the country, there are very little opportunities for growth within a consumer market of, say, 3 million population in Ireland, you have say 330 million in Europe. So it makes good economic sense obviously to invest in a market where you have 330 million people rather than where you have 3 million.”*  
(IRL100)

**Table 8.6 Sales of Irish Dairy Companies by Region, 1994**

Sales region	Avonmore	Kerry	Waterford
Domestic	24%	31%	38%
Rest of Europe	55%	37%	45%
Rest of World	21%	32%	17%

Source: Compiled from ABN AMRO (1996); Company Annual Reports

As the larger companies have internationalised and some, for example Kerry, have diversified significantly into food ingredients, the relative importance of the Irish sites as centres of accumulation has declined. The domestic market has declined in relative importance for many of the major Irish dairy companies; by 1994 the domestic market accounted for less than a third of the total sales of Kerry (see Table 8.6). A trade union official commented on the declining importance of milk processing and the Irish sites in the Kerry Group:

*“the company has developed food ingredients now as a major element and has become international as such has diminished to a certain extent the importance which people back at the local base, still dealing with the milk issue feel. Whereas one time they were the kingpins now the industry is gone from them as such, that the major developments and the major profits are being made in other areas.”* (IRL201)

Employees and trade unions are in a dichotomy in their attitude to these changes at one level welcoming the expansion and growth, which makes the company more secure, while at other levels resisting changes brought about by internationalisation. The

strategic importance of the increasing scale in Irish companies is recognised in the two comments below from trade union officials:

*“we also have to be conscious that there is a strategic reason for it , to be going out there to do this and that is a protective, its a form of protection of our own position. And its better to go out there, being aggressive in the market place, rather than for us to be subject-- you know the reverse ” (IRL200)*

*“well on the one hand we're concerned about mergers like Avonmore and Waterford because of its rationalisation but on another level we really need strong, two or three maybe strong companies that can take on the multi-nationals, because the prospect longer term would be that if they are not big enough, they will be swallowed up at some stage by one of the giant conglomerates.” (IRL202)*

While the companies become more integrated into the global regime, achieve scale and are driven by the dynamics of investor led-accumulation, two formidable local influences still prevail in the Irish regime, namely the farmer owners and the trade union. The importance of these influences is stressed by a Trade Union official:

*“But I think the major thing it's probably made them (management) much more in tune with corporate kind of culture internationally and trying to devolve that into their own situation. But happily moderating, i.e. two things, the ownership structure is still influenced by very traditional, particularly on the farmers side, and two, a union side that still has to be reckoned with, which isn't the case obviously abroad. “(IRL202)*

In contrast to the late 1980s and early 1990s, foreign capital has declined in direct influence on the Irish industry. There was significant foreign investment in the Irish dairy industry during the 1960s and 1970s, when foreign-based capital drew on a cheap

source of milk and a relatively underdeveloped industry. A very experienced executive in a supporting industry recalled what the situation was like and the more recent changes:

*“Well when I started out, the UK virtually owned the Irish industry with a few exceptions. They owned Carbery in West Cork, most of the factories, the original Rathduff, Kilmeaden, Wexford were all Unidare factories, Avonmore was originally a Unidare factory. The reverse has happened now. The Irish industry has bought out, to a large extent, the old Express Foods, which was part of Grand Met. Cheese company in the UK, Waterford has bought that, so the reverse is happening”*  
(IRL702)

However, while several foreign owned companies have withdrawn from the Irish industry, they remain an important part of the industry. Foreign companies have been, and continue to be, involved in downstream activities in the industry; their presence is as a customer of the Irish dairy industry (O’Connell *et al* 1997). Foreign owned multinational enterprises (MNEs) are present to draw on a raw material, and their strategy is typical of a multi-national company seeking low cost raw materials<sup>36</sup>. A senior food analyst crystallised the attraction of Ireland for foreign owned companies:

*“Nutricia sees it as a source of competitively priced high quality powders, basic powders, for baby food and Wyeth the same. It's an attractive source of grass fed quality basic milk products, so if you're a value added big multinational it's a useful place to have a source of product,”* (IRL303)

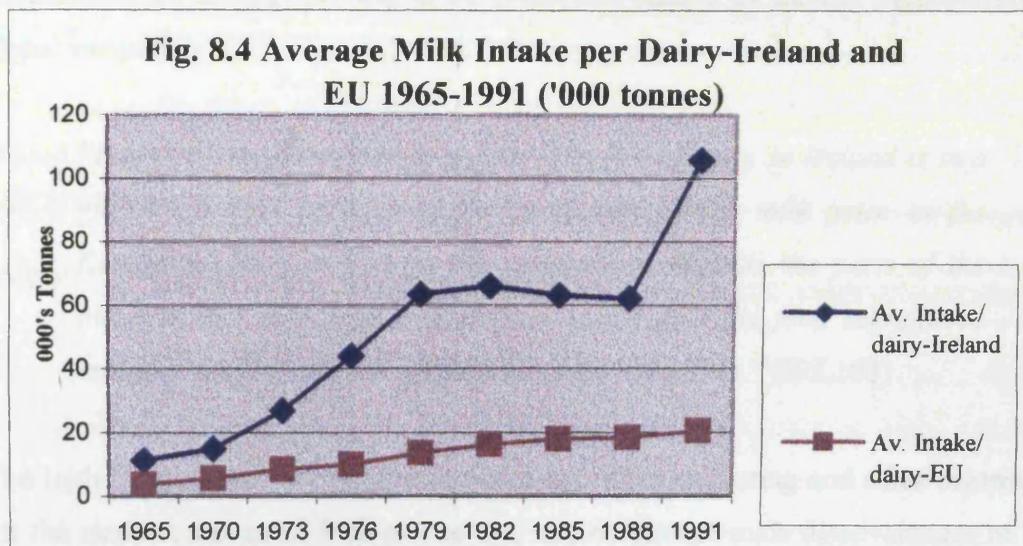
However, MNEs have played an important role in helping the development of the Irish industry by imposing high quality standards and demanding specifications. A senior executive in the Irish industry commented on this positive influence:

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<sup>36</sup> The cost of the raw material is especially important in dairy products because the cost of the raw material constitutes a large proportion of the final cost of the finished product.

*“I think their influence has been a catalyst. And I would say a lot of it was very good, it has helped to bring up the standard right across other industries, helped to recognise that to compete internationally you have to compete at the top of the range, not alone have they pushed the development of people but the whole system and has imposed standards that we would have been chasing, and wouldn't think necessary, it has opened up the world, there was a flow from the parent industry.” (IRL102)*

A final example of the increasing influence of the external orientation of the Irish industry are the economies of scale that are prompting a restructuring of the industry. The search for economies of scale parallel changes taking place in major competitor dairy producing countries, such as New Zealand and Australia. Increases in the scale of production are challenging the fragmented structure of some of the Irish industry. There have been increases in scale in the Irish industry particularly compared to the EU average scale (see Fig. 8.4). While increasing global links are a feature of the Irish industry, major structural and technological adjustments in terms of scale have not taken place within the home based industry, leaving the industry fragmented and lacking economies of scale compared to its competitors. This is in contrast to New Zealand and Australia where these changes have taken or are taking place (see Table 6.5).



Source: MMB (1978-1994)

The implications of these changes and the need for the Irish industry to respond to these changes are stressed by a senior executive of a major engineering supply company to the Irish industry:

*“if you look at the cost of manufacturing a tonne of powder in New Zealand or Australia compared to Ireland, certainly there is a massive economy of scale, they have installed a new spray dryer, a new evaporator doing 30 tonnes of powder per hour which would replace probably five or six manufacturing dairies here in Ireland, if we had that type of economy of scale here we would automatically loose probably a Dairygold, a Golden Vale, a Nenagh, an NCF and a few more and you would have one or two processors for the whole of Ireland ” (IRL703)*

While much of the industry is affected by increasing inclusion in a global regime, the EU framework and the role played by the Irish Dairy Board prevents full integration. The EU market regime for dairy products protects the European industry and acts as a buffer from the full effects of globalisation impacting on the industry. A senior

executive in the industry pointed to the protection offered by the EU framework to full global integration:

*"I don't think you could say yet that the full industry in Ireland is in a global situation because of the protection of the milk price in the European Union and so on but certainly as regards the parts of the business that are competing internationally like the food ingredients industry, they are into the whole area of globalisation."* (IRL103)

The Irish Dairy Board, which operates as a collective marketing and sales organisation for the medium and small Irish processors, overcomes the scale disadvantages of these companies. However, as pointed out by a bank executive, continuing liberalisation has significant implications for the medium and smaller processors relying on the Irish Dairy Board:

*"I think it's going to hurt the small players more, they don't have the diversified businesses. They're simply producing butter and cheese and handing it over to the Irish Dairy Board and let the Irish Dairy Board look after it, in the warehouse and flog it."* (IRL300)

As previously discussed, a significant part of the Irish industry has become integrated into the global financial network. Also, links through markets and internationalisation add to the adhesion the industry has with the global regime. However, the protected nature of the EU dairy products market operate as a barrier to full integration of the Irish industry to the global regime. In addition, the Irish Dairy Board has operates as an additional buffer for the small and medium processors in the Irish industry. This marketing umbrella organisation shields the smaller and medium processors from scale disadvantages in marketing and sales.

## 8.7 State Intervention

The shift in the focus of decision making from national to the supranational stage changed the context of the relationship between the agri-food sector (including the dairy industry) and the government, namely from confrontation to alliance. The entry of Ireland into the EEC in 1973 resulted in a fundamental change in policy dynamics in the agri-food sector. Prior to entry, there was confrontation and conflict between the farm organisations and the Government. After entry, the Government and the farm organisations tended to be on the same side as they tried to maximise resources for the Irish agri-food sector from Brussels. Consequently, there was much more consultation with farm organisations and other representative organisations than there had been prior to entry. As a former senior Irish civil servant commented:

*“There would have been much less consultation prior to the Common Market entry. Indeed there would have been a lot of confrontation. One of the changes that came with the Common Market was that a lot of the ‘aggro’ which would have existed between farm organisations or farmers and the government was taken out of the equation because these decisions were in Brussels and to a large extent, once the Exchequer was no longer funding things, then the Government and the industry tended to have much more of a common interest than they would have had before.” (IRL800)*

As Brussels has become the focus of decision making, the Irish agri-food sector has moved very much into reactive mode. For government, farmers groups and the industry bodies, most of their energy is given to reacting to initiatives and proposals from the EU. A civil servant representing the Irish Government on dairy matters put it this way:

*“It is reacting, it is quite reactive isn't it? I mean, we are constantly trying influencing and reacting to incremental changes within the overall support framework to maximise our advantage if it is on something like export refunds reductions, if it is to changing*

*destinations for refunds or anything like that on a very micro level we are doing that constantly.” (IRL801)*

The ownership of the Irish dairy processing industry by its farmer suppliers has resulted in farmer organisations dominating public debates and policy representation on major policy issues such as CAP reform and dairy quota policy. The industry on the other hand is less vocal and concentrates on issues of specific interest to processors. According to a senior industry executive:

*“We would tend to only be active when there is an issue of specific interest, we tend to be not strident, we're not moulders of the scheme of things. We tend not to be involved in broader issues.” (IRL102)*

However, inevitably, issues arise where processor and farmer views may be at variance. The fact that the industry is owned by the suppliers, can create difficulties in discussing or addressing issues where the processor and the farmer interests may be at variance. As a farm organisation representative explained:

*“I think in many ways the dairy industry has some difficulties with itself in terms of how it sees it's priorities, how do I explain this, it's a little divided between it's processor ego and it's co-operative ego at times and that can cause some difficulty, it certainly makes discussing or envisaging certain things quite tricky, because the politics of farming can sometimes stifle certain issues,” (IRL501)*

However, over time, the industry has developed a separate representation structure, which focuses on issues of direct relevance to the processing industry. The Irish Co-operative Organisation Society (ICOS), an umbrella body for all co-operatives in Ireland had been prominent in representation and lobbying for the dairy industry (both producer and processor) at national level and European level through COGECA<sup>37</sup> (see

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<sup>37</sup> Comité Général de la Co-operation de la Agricole de la CEE (COGECA).

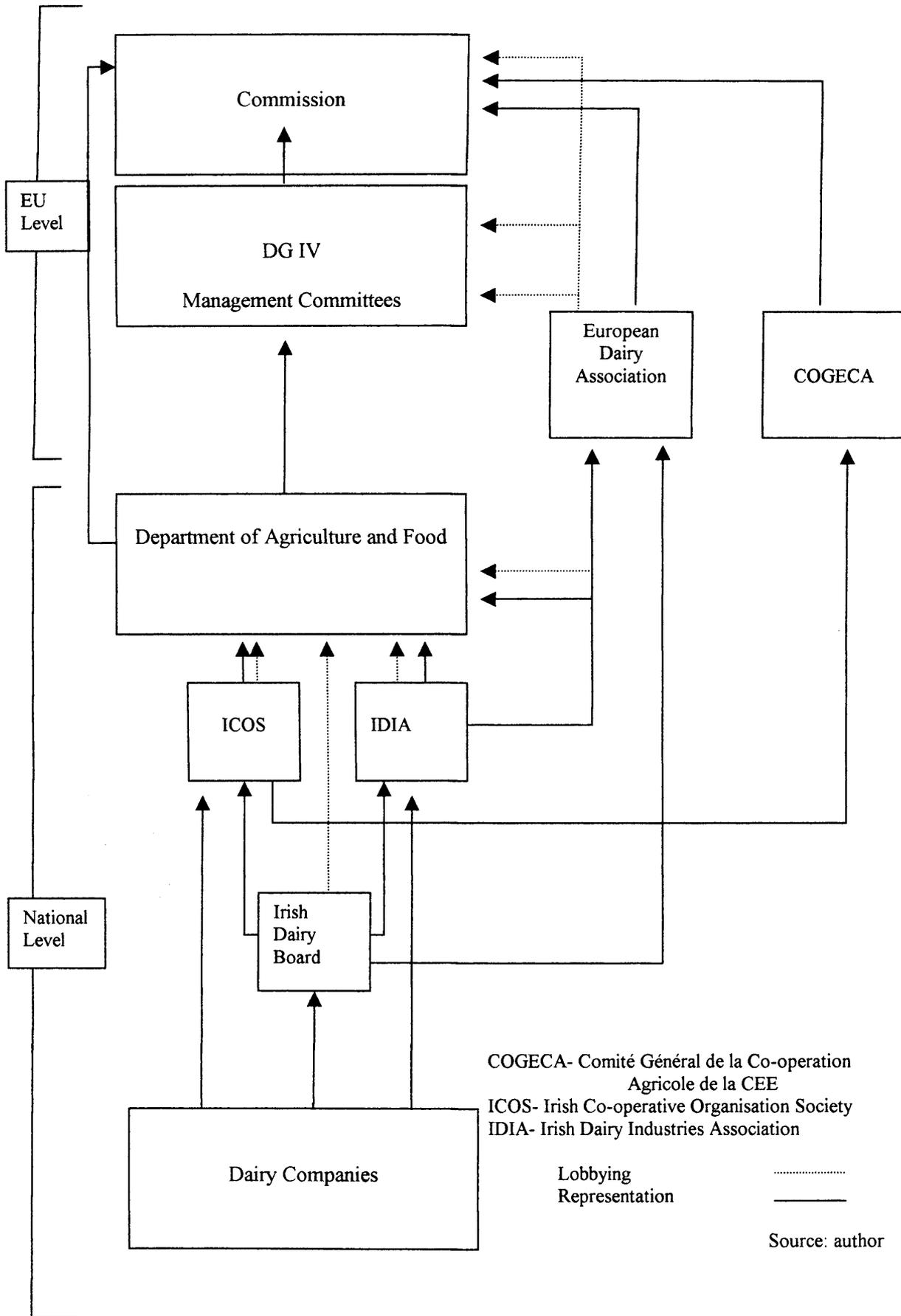
Fig. 8.5). However, during the 1990's, the Irish Dairy Industries Association (IDIA) has become more prominent at national level and at European level (through the European Dairy Association (EDA)) especially with regard to processing industry issues. While there is overlap of functions, the IDIA at national level and the EDA at European level are now seen as representative of the dairy processing industry. A former senior policy advisor explained the role played by the IDIA:

*“What the IDIA have done is, they have identified that niche, particularly in relation to schemes, and how to allot more money from those schemes, and they're in there lobbying at a senior level in the Commission as regards levels of casein aid, and butter powder schemes. Things that matter in pounds, shillings and pence, the bottom line in co-operatives. They have taken all that away. They don't get themselves hooked into quotas or into milk prices or into CAP reform to any great extent except as to how it affects the industry, not how it affects the producer” (IRL900)*

As shown in Chapter 5, the European regulatory framework for the dairy sector has had a major influence on the development and direction of the Irish industry. The availability of intervention and the various disposal schemes have in particular influenced the output and orientation of the industry. The support schemes have been very beneficial and the Irish industry has disproportionately benefited from support for the production of casein. An experienced representative for the Irish industry elaborated on this:

*“Now at the same time one has to accept that a great deal of the development of the industry is based on the EU structures and regulations that are there in place. And to an extent the EU support system and intervention system has lead to a certain development within the industry, and I am thinking of things here like the intervention systems for butter and skim milk powder, like the support regulations*

**Fig. 8.5 Irish Dairy Processing Industry Policy Network**



*for butter, regulation 570, calf milk replacers, skim milk powder, casein etc. all of those would have a major impact on the type of industry that we have here which is nothing new to anybody.” (IRL401)*

It is recognised that the industry has been very successful in gaining support for and utilizing the various schemes for maximum advantage (O’Connell *et al* 1997). A former senior civil servant referred to the Irish industry as being successful in this respect:

*“They have tended to be very successful until relatively recent times by the maintenance of a very strong scheme to assist the production of casein. They have also been successful in, but this is true of the industry as a whole, not just the Irish Industry, in maintaining very strong internal disposal measures in the Dairy Sector.” (IRL800)*

Participation in some schemes has also steered the direction of the development of the industry. For example, Irish processor participation in the casein disposal measure for skim milk has placed the industry in a strong position to diversify into food ingredients. A senior civil servant commented:

*“In other respects it (CAP) was advantageous because it got the industry oriented towards casein and the use of whey in the food industry. Casein because there was a subsidy, whey because it followed on from where they went in the casein market and got the industry interested in food ingredients. In my view, without there being a community scheme for casein our industry would probably not have gone down the road which is has down quite successfully” (IRL800)*

These schemes are also very important to the industry financially as reflected in the comments of a civil servant specialising in dairy issues:

*“it is more on the internal disposal schemes, what is it called now 2571 we always call it 572. Butter for pastry and ice cream, whatever SMP oh! casein is very important to us. It is worth about now 65 million in a year, which is quite substantial on the internal disposal side of things. So, internal disposal, export refunds and intervention when it is open for SMP and butter. And we have 8 private storage schemes as you know as well, but they are very much downstream interests.” (IRL801)*

The policy context of the industry has evolved and been shaped by the European framework and by the strong co-operative, producer ownership base. The industry tends not to get involved in general policy issues, but rather focuses on issues of specific interest to the industry. Over time a separate representation structure for the industry has developed at national and European level. While at first sight it may seem another example of growing international linkages for the industry, it is more of a feature of the Europeanisation of industry’s representation structures. The integration of the Irish industry into the market regime of the EU has had a particularly strong influence on the development of the industry.

### **8.8 Hegemony and the Outcomes of the Changing Mode of Social Regulation**

An important feature of an MSR is the emergence of an individual, group or coalition of organisations and/or institutions that are hegemonic. In the Irish industry, evidence of an old regime followed by a period of transition, and the replacement by a new regime does emerge. Up to the mid-1980s, an old regime was dominant. The old hegemony revolved around the Irish Dairy Board and the “big 6” co-operatives that emerged out of the wave of amalgamations that occurred in the late 1960s and early 1970s. The 1980s were a period of transition; a new hegemony has emerged out of this transition during the 1990s.

A feature of the transitional period in the industry was a degree of conflict between different companies. These conflicts are referred to as the ‘milk wars’, which were most prevalent in the early and mid-1980s on the borders between milk supply

catchment areas. Some companies attracted or accepted milk suppliers from other companies, and in return some companies, which lost suppliers, retaliated by attracting suppliers from the other company. A trade union official elaborated on the motivations of such actions:

*“The main criteria behind those wars was the need, the almost absolute need, that the co-operatives, the individual co-operatives wanted, more product at that stage. That was the “be all and end all” and therefore if you hadn't sufficient milk in your own catchment area you went outside to try and get it and you paid a higher price.” (IRL204)*

This type of conflict has since declined as the companies have changed their focus from local and national to international areas of marketing. Also, as competitive PLC companies, it would be unattractive for investors to have publicity about the companies fighting in milk wars. A farm organisation representative commented on the milk wars as follows:

*“the kind of active competition has moved away from the national scene, and has moved internationally, and it doesn't produce quite as much blood in the corridors,” (IRL501)*

A senior buyer for a major retailer on the futility of such activity:

*“I think the industry came to the conclusion that there wasn't anything to be gained out of it at the end of the day. There was eleven hundred million gallons of milk in Ireland and you weren't going to gain much by getting ten million more gallons one year and your neighbour fighting a guerilla warfare to get it back the following year.” (IRL800)*

In this new regime, Kerry is seen clearly as hegemonic due to its size and growth and its leading role in the industry. It was the first Irish dairy co-operative to change to PLC status, to internationalise its activities and achieve a global presence moving beyond

dependence on the Irish market. It became an example for other companies to copy. Because of its success as investor led-accumulation, the company is revered by the stock market and the banking stockbroker sector. It is also very well regarded by farmer suppliers because its success as investor-led accumulation has made it possible to pay a very competitive price to its farmers also.

*“we would believe that the key player in the dairy industry is Kerry and they set the standards, they set the goals.” (IRL101)*

*“you'd have to say that Kerry are mould breaking in terms of what has happened in the industry, they were the first to convert to PLC, they were the first to make any overseas investments and they were followed by other players” (IRL302)*

*“These are leading companies in terms of the structures they have adopted, in terms of being able to move forward and change structures from co-operative ownership to PLC ownership. I consider that Kerry in particular were innovative and leading in this way-that they had the ability to be the first dairy company to push through PLC ownership.” (IRL200)*

*“Kerry has been extremely successful, its an extremely successful company by an standards, they have doubled their profits every five years, for the last twenty five years. Very few companies in the world can actually point to a track record like that.” (IRL301)*

However, many regard Dairygold as a counter force to Kerry and the investor-led accumulation segment of the industry. In the context of producer-led accumulation, it is successful; it has paid the best or close to the best price for milk, and many in the industry believe it plays an important role counterbalancing the desire of PLC companies for high profits. A representative from a farmer's organisation, stresses the importance of Dairygold from a farmer's point of view:

*“in terms of farmers, the way farmers would look at it, I would say Dairygold is possibly the key player, the one to watch really. Particularly in relation to milk price.” (IRL500)*

This investor versus producer led-accumulation divide is reflected in the comments of this industry executive:

*“And then I suppose if you look at that then you are processing 20% at Dairygold, which is co-operative and the other 60% would be processed by the 4 plcs, and the remaining 20% would be processed by small co-operatives. If you like you are breaking down, 60% plc and 40% co-operative” (IRL108)*

The transition from the dominance of producer-led accumulation to investor-led accumulation, which in turn stimulated the greater integration into the global system has resulted in the decline of the hegemonic position of the Irish Dairy Board (IDB). In the old regime, the Irish Dairy Board had an important role as the key link between the industry and the international market (see Fig. 8.6). This important role is stressed by a senior banker:

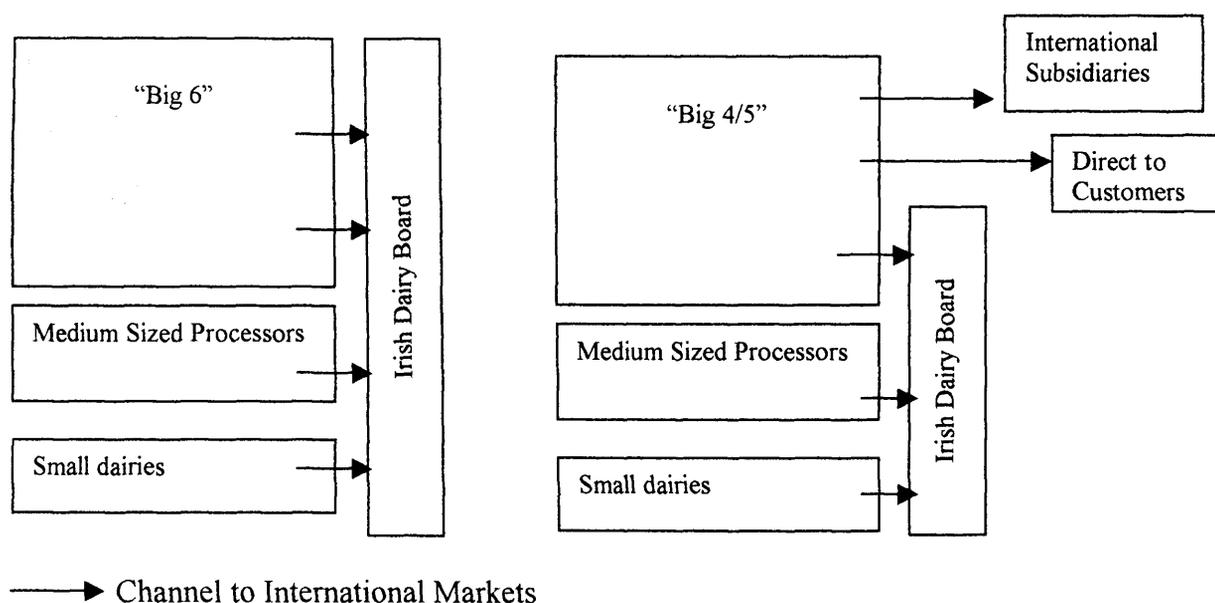
*“I think one of the most influential developments was the creation of the Irish Dairy Board to deal with the overall marketing of produce, that's going back to the 60s and 70s, that provided a marketing arm for the dairy processors who themselves did not necessarily have the capabilities or resources to carry out overseas marketing, that was a very significant development as that obviously provided for and assisted the growth of the sector, that was quite important looking back over three decades” (IRL400)*

However, many of the larger companies have expanded and internationalised, operate their own international marketing activities and do not use the Irish Dairy Board (see Fig. 8.6). A former senior policy advisor elaborated on this issue:

*“more of them are selling product outside their board, and are selling them into premium markets, and are using the board as a sort of float price and operating above that. The number that are putting all their product through is getting smaller, and I think it is a problem for the board, who are doing a very, very good job. But the board has become a benchmark; a benchmark price and they are being used, and they know they are being used. I think that is an issue.” (IRL900)*

As a consequence, the Irish Dairy Board markets produce from the small and medium processors and some of the produce of the larger processors. The development of strong international companies, with their own brands and marketing system, has reduced the significance of the Irish Dairy Board. However, the Irish Dairy Board continues to play an important role for that part of the industry that remains producer-led. There are divergent views on the role, which the Irish Dairy Board now plays: some regard it as an alliance that overcomes the scale difficulties of scale for the smaller processors and allows them to survive. Such a view was expressed by a banking executive:

**Fig 8.6 Irish Industry Structural Change**



Source: author

*“perhaps Board Bainne (former name of the Irish Dairy Board) by virtue of the consolidation that’s going on in the industry, they still have a role for the co-operatives of the medium size, co-operatives that were left behind, providing a marketing effect, a finance function that these people don’t have or need to have,” (IRL302)*

Others have a less positive view: the Irish Dairy Board is seen as organisation that was hegemonic but finds it difficult to adjust as many of the major players in the industry having moved on and no longer require the Board. Comments from a stockbroker captured this sense of an organisation that is not hegemonic anymore:

*“I think the Dairy board has been pursuing an agenda of maintaining a highly fragmented processing structure, they’ve been anti-change, they’ve been not happy with the merger process, they like to have a divide and conquer policy, they don’t like individual processors marketing outside of Ireland independent of them, the legacy of the time they had a monopoly back up to 1973 ... .. They’ve been by far the most negative influence on the strategy and tactics of the industry. They find it very hard to live with an environment they don’t control, it’s quite a negative factor in the evolution of the industry” (IRL303)*

The old hegemony based on the former crucial role of the Irish Dairy Board in providing a link internationally to export markets has been superseded. The shift to investor-led accumulation, coupled with increasing global integration, has made the Board redundant for many of the major players in the industry. Out of a period of transition, a new hegemony has emerged based around the success of the Kerry Group in becoming integrated into the global regime.

## 8.9 Conclusion

Based on the analysis of key actor interview material and relevant secondary data, some conclusions are drawn on the changing form and outcome of the MSR for the Irish dairy processing industry. Mardens (1992) five elements and hegemony are used as the basis to discuss the changing form and outcome of the MSR (Fig 8.7).

First, for the *market and competition* the growing influence of retailers through the concentration of capital has increased the emphasis on branding, product range and a strong presence on the market. Internationally, direct relationships with customer companies to satisfy specialised needs has become more important. The result is a closer partnership approach between supplier and customer. The industry is responding to a gradual shift from institutional regulation (supranational) to market regulation.

Interview data have enabled labour relations to be examined. From the analysis, *labour relations* for the Irish industry have been found to be traditional and confrontational, with change resisted by the workforce. In the context of a decline in employment in the Irish industry, and continuing rationalisation, job losses remains the central issue. However, local regulation can be very influential in modifying the overall context.

Changing *financial relations* in the industry have been important in the increasing globalisation of the industry. As a result, the industry has access to more competitive sources of finance. Financial relations are closely linked to global links, as just noted, and also to changing hegemony in the industry. Driven, in part, by the need for funds to internationalise, a significant part of the industry has shifted in hegemony from producer to investor-led accumulation.

Turning to *state intervention*, EU level regulation of dairy products has been very influential and the focus of attention for the industry and the Irish government. However, there is competition and overlap in the Irish policy network for the dairy industry, but producer influence is dominant. The EU regulatory system for dairy

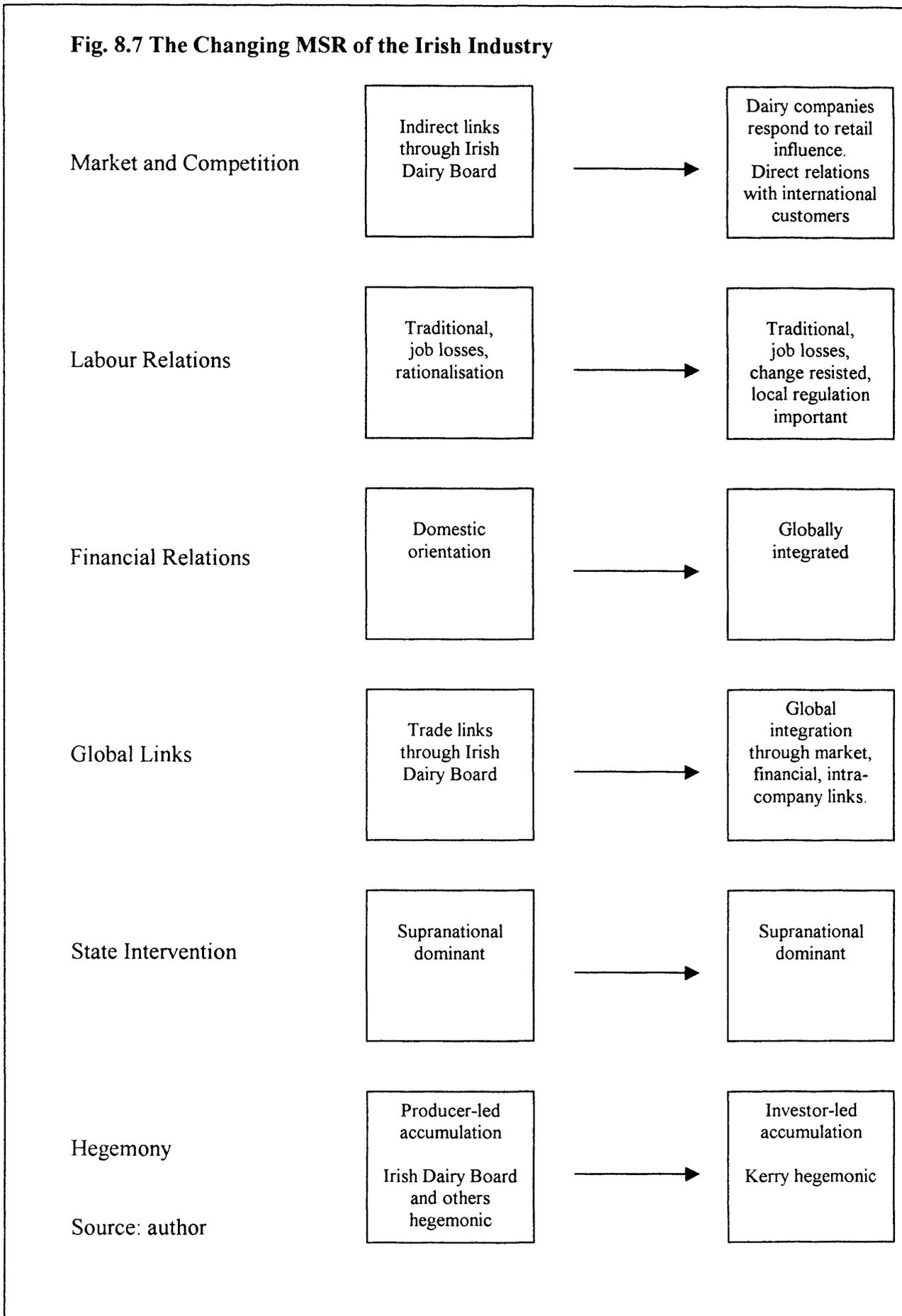
products has been very influential for the Irish industry and has steered the product and market focus for the industry.

A significant feature of the changing MSR has been the increasing *global integration* of the Irish dairy processing industry, already referred to in financial relations and the market and competition above. In addition, internationalisation of activities by several of the larger Irish dairy companies has been a major impetus to this increasing integration. However, some barriers remain to full integration. EU support for the dairy sector, the Irish Dairy Board and the producer-led focus of a segment of the industry serve to insulate the domestic industry from the harsher effects of full integration into the global regime. It has resulted in domestic activities becoming relatively less important compared to international activities. However, despite the internationalisation, the Irish industry suffers from scale disadvantages compared to its major competitors.

Two significant features of *hegemony* have emerged. First, in relation to accumulation type, a significant segment of the industry has experienced a shift from producer to investor led-accumulation. This shift has accelerated and facilitated the increasing integration of the industry into a global regime of accumulation. In turn, it was driven by the need for funds to internationalise the companies activities. Second, out of this changing MSR, the old hegemonic groups encompassing the 'big 6' and the Irish Dairy Board has given way to the dynamic, innovative and globally orientated organisations in which Kerry is seen as the leading company.

The analysis of key actor interview material and relevant secondary data has illuminated the changing form and outcome of the MSR for the Irish dairy processing industry. It has significantly added to the initial analysis of the MSR based on secondary data in Chapter 6. The importance of the increasing concentration of capital in retailing, and the Irish dairy industry response to this, has emerged. So also has increasingly specialised international customer needs and the development of more long-term partnership-type customer relationships. The significance of type of labour relations, the significant issues, the methods of resolution and the national and local

**Fig. 8.7 The Changing MSR of the Irish Industry**



regulatory contexts for employee relations have been identified. The increasing global nature of financial relations and the close link to hegemony through accumulation type was also an important outcome of the analysis.

The detail of the dairy industry policy network, the dominance of producer influence and the importance of influence at EU level emerged from the interview material. With increasing global links, the limitations of the domestic market, the declining importance of Irish sites and the changing role of the Irish Dairy Board became apparent. Finally, the significance of understanding changes in hegemony was crucial for the Irish MSR. The importance of the shift to investor-led accumulation in driving performance, expansion, growth, and internationalisation was identified. In addition, hegemony in the Irish dairy industry is moving toward operating and accumulating globally.

## **Chapter 9**

### **The Mode of Social Regulation for the Danish Dairy Processing Industry**

#### **9.1 Introduction**

In this chapter, the changing form of the Mode of Social Regulation (MSR) for the Danish dairy industry is elaborated. As with the Irish context, the MSR has changed significantly from the 1970/1980s to the 1990s, as summarised in Table 9.1. At the global level, a supranational dominance of dairy products trading has given way to a liberalizing global framework. The highly regulated supranational framework has been relaxed, to an extent, allowing market forces to play a greater role. At the national level, the national industry has maintained its hegemonic position in the domestic market, while global regulation has steered a re-orientation of exports from third countries to the internal EU market. The concentration of capital domestically, which is now almost complete has facilitated a further expansion internationally. Employment has continued to grow in the industry; however, employment has become concentrated in fewer centres. Producer-led accumulation was diluted in international activities as investor-led accumulation was introduced. At the local level, concentration of capital and employment has increased alienation among the workforce and producers.

The changing form of the MSR for Denmark is now discussed in more detail, based on Marden's (1992) five elements and hegemony, using a similar set of headings as in the analysis of the Irish dairy industry. As in Chapter 8, the inter-related nature of the elements of the MSR are evident and hegemony is also addressed in a similar fashion. The issue of accumulation type is examined at the outset of this chapter and the changing hegemony is discussed in conjunction with the outcomes of the changing MSR.

**Table 9.1 The Changing Form of MSR for the Danish Industry**

Level of Regulation	1970/80s	1990s
Global	Supranational dominant through trading blocks  Commodity trade	Liberalising trade through GATT/WTO  Supplier-Customer links  Scale important
Supranational-EU	Protected markets, subsidised trade  Supply control introduced  Brussels key decision centre	Protection reduced,  Supply control continues,  Disposal measures-prominent  Industry representation Brussels
National	Hegemonic in domestic market  Hegemonic in national context  Reliance on market support (Feta)  Concentration of capital  Employment growth  Producer-led accumulation  Intra-industry conflict	Hegemony begin to be challenged  Hegemony challenged  Shift to internal (EU) markets  Concentration of capital complete  Employment growth continues  Inclusion of investor led accumulation on international activities  MD Foods hegemonic (Producer-led accumulation)
Local	Producer-led accumulation  Local plants focus of accumulation  Workplace linked to community	Producer-led accumulation  Local plant part of corporate entity  Workplace detached from community

## 9.2 Hegemony- Producer-led Accumulation

Similar to the Irish industry, the type of accumulation has emerged as a key aspect of the hegemony element of the MSR for the Danish dairy processing industry. It is a key influence in the overall MSR and is closely linked with the financial relations element of the MSR.

The structure of co-operatives in Denmark places limitations on the ability of co-operatives to raise finances from their own members. The co-operatives have no shares and the co-operatives are owned collectively by all the members. For example, the two

large dairy co-operatives in Denmark - MD Foods and Klover - have no personally allocated capital (Federation of Dairy Co-operatives 1998). The capital collected from profits, which is not returned to members, becomes consolidated profit and no members have any claim to it at any time. The destination of year-end profit is decided at the annual general meeting. It can be returned to members in proportion to their turnover with the co-operative or retained as unallocated capital (Federation of Danish Co-operatives 1993). Because the individual shareholder has no allocated shares, he or she has no incentive to invest in the co-operative. Traditionally, the dairy co-operatives in Denmark, therefore, could only raise funds by retaining profits or by obtaining loans from financial institutions. There is very limited potential of raising capital from the farmer-owners, a point plainly made by a senior financial executive in a Danish dairy company:

*“So we have got our owners and their ability to finance our activities is very, very limited. Then obviously we can do it better traditionally. There are the banks and financial institutions all have finance in place..... Then again our farmers have very, very limited resources to finance into this company.”* (DK106)

Therefore, the dairy co-operatives tend to rely on bank debt as a source of finance. While lending is very much dependent on the individual circumstances of a company, the dairy industry is regarded by the major banks as a very solid industry to deal with: firstly, because of its strong position on the domestic market; and, secondly, its ability to pass back price difficulties to their farmer suppliers. A senior banker pointed to the stability of the industry and the potential to pass negative changes to the farmers:

*“because they have dominant role on the domestic side where they have a very safe cash flow, very safe, and actually what you call, you can very easily the milk consumption, cheese consumption in Denmark and also that's a good stable resource to have ..... If there are export possibilities or export situation changes in a negative way they can immediately, pass it on to the farmers, so they don't take the burden themselves which they do in other industry,”* (DK300)

The current climate is good for borrowers and MD has emerged as a very strong company in the Danish industry. Therefore, in the opinion of banking executives, the source of funds does not have much influence on the companies in the industry.

*“also the Danish Banks are very liquid and the competition from abroad, especially the Swedish banks, German banks, French banks, have accelerated in the last decade or so, so that has an influence ... .. I think the banks are so eager to lend the industry money and the competition is so fierce its extremely difficult in a situation where industries or a company is going into jeopardy of course we have a role there, but not as strong as they are doing fine.” (DK300)*

As companies seek to internationalise their activities, borrowing from banks as a source of finance on its own is not adequate and, as in many other countries, co-operatives seek other means of raising funds. In Denmark, MD Foods sought to get around the problem of finance by setting up, in 1989, MDI (MD International), an umbrella company, for their international activities. MD held a majority shareholding of 51% in MDI, while institutional investors held the remaining 49%. This is the first dilution of producer-led accumulation in the Danish industry, with an investor interest in the level of accumulation in the MDI. The MD executive who founded the company explains:

*“and I established a company with a limited structure which was a company obviously created with capital from us, capital from institutions and investors ending up with a company with a capital structure 51% to the dairy industry as primarily in food, 49% to financial investors.” (DK106)*

As in the case of MDI, the difficulties of a part producer part investor-led accumulation structure are evident when continuous losses occur. The creation of MDI with this structure has created a dilemma of whether the MDI role is to become an important player in the European dairy industry or pay the best possible price for milk. This dilemma has become particularly acute in the mid and late 1990's as MDI has recorded significant losses, particularly in its UK subsidiary. Between 1989 and 1998, MDI lost

DKr1.3bn (\$184m) from operations in the UK (Financial Times 1998). A senior civil servant highlighted the dilemma for MD Foods:

*“The processing industry has been trying to get outside investors to finance there long term projects so they could make their long term projects without being having pay back.... Every year from the farmers in the short term. Especially concerning the experiments, MD have made in Britain with MD international, the amount of money that that has cost has accentuated the debate within the industry .....being a main player on the European dairy industry which gives them different objectives from collecting the best possible price for the milk, that's a dilemma that's not solved, it's not an open battle but it's something they have to find their position on.” (DK800)*

The Danish industry is dominated by producer-led accumulation. However, in needing funds to internationalise and achieve international economies of scale, the introduction of investor-led accumulation has recently diluted the influence of producer-led accumulation. Closer adherence to the global accumulation regime further dilutes the influence of producer-led accumulation. The need to match large investor-led accumulation of capital in growth, profitability, product development and marketing efforts requires profits which diminishes the potential for producer-led accumulation to dominate.

### **9.3 Market and Competition**

#### *9.3.1 Domestic Market and Competition*

In the Danish domestic market, a system of market regulation has evolved which has resulted in a concentration of capital both in retailing and in the dairy processing industry<sup>38</sup>. While the market has opened up to foreign imports, Danish companies have

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<sup>38</sup> The background to regulatory concentration in the Danish dairy industry has been discussed in Chapter 7.4.

continued to control the domestic market. A politician commented on the domination of the domestic market:

*“The market has been open, but it has not been very attractive for foreign companies because the cost of getting into the Danish market by competing with the strong Danish companies until now has been so high that it is very, very few products from some of the large multinational companies are actually on the Danish market. So, you could say that the Danish dairy industry has maintained control of the domestic market.” (DK901)*

Despite the concentration in the Danish retail market, the dairy companies are dominant and face less competition from foreign competitors or from the multiple retailers. Thus, the dominance of Danish companies is despite the fact that market concentration levels in the retail sector are the third highest in Europe (see Table 9.2). The level of penetration of own-label products in Denmark is 15% for all products and zero for dairy products. This strength of the domestic companies is evident from the inability of Danish retailers to acquire own-label dairy products in Denmark. Interviews confirmed the absence of own-label dairy products on the market; however, the retailers at the time of the fieldwork were perusing the production of own-label products through competition authorities. As a senior banking executive familiar with the Danish dairy industry commented:

*“They don't have own-label milk, they don't have own-label cheese. It is the dairies 'milk and the dairies' cheese the dairys' yoghurt and so on. So the Danish retailers are not as strong yet. I know that the retailers have asked the Danish controllers of competition to be allowed to produce own-label milk and cheese products and but that has not finally come to any conclusion.” (DK300)*

**Table 9.2 Food Retail Structure – Selected Countries 1994**

Country	Market Share Top 3 retailers	Penetration of own labels brands in all sales
Sweden	95	10
Norway	86	7
Finland	80	5
<b>Denmark</b>	<b>77</b>	<b>15</b>
UK	43	35

Source: O'Connell *et al* (1997)

A regime has evolved where a few large dairy companies have a very powerful position in the domestic market, strongly buttressed by the alliance of the two main companies—MD Foods and Klover. This is despite the high levels of market concentration in the retail sector. MD and Klover control over 90% (see Table 9.2) of the Danish milk supply. The following comments by a senior buyer in the Danish retail sector illustrate the strength of the dairy industry:

*“O.K. So if I explain to you that MD Foods is the main supplier for FDB. Klover is the main supplier for Dansupermarket. So these two dairy companies have a production company they own together where they produce a lot of products together, they use the same facilities. So they are quite strong. We are big retail organisation and its not always advantageous to be big. We don't, we cannot force MD Foods to do what we want. But of course if we don't want to sell their products we just stop buying them. But we don't have any influence on the products they produce in their brand. That's why we want more in private labels. They have quite a strong position. But of course we have prices fixed like that, its always open for negotiation... .. We make the same pressures (for own label products) but until, let's say, this year, we haven't had the success, but they are changing now. Now they are willing to talk private labels.” (DK600)*

The hegemonic position of MD and Klover in the domestic market is also recognised by other producers who must be careful in their strategies not to upset the main players. As one smaller cheese producer put it:

*“The big company you know MD Foods and Klover, they do leave us in peace because we are one of them who make price go up. We changed to stay in the market for many years.” (DK100)*

Other producers have used strategies of focusing on innovation and export markets to avoid the dominating influence of MD and Klover. An executive in a competitor company of MD and Klover explained:

*“There has been increased pressure on price, but in response to that, Tholstrup have to avoid that pressure emphasizing quality, innovation and branding.” (DK104)*

MD Foods uses its dominance in the market to maintain its hegemonic position. Other dairy companies are predated upon by MD Foods, while companies that threaten MD's market position suffer retaliatory action, which can have dramatic consequences because of the power of MD Foods. An official in a related industry body elaborated on the strategies used by MD Foods:

*“We also used to have some dairies which specialised exclusively in Feta cheese. When export refund was cut down these dairies experienced that it was very hard to change production, or shift the production to cheeses for home markets, milk, or whatever. There are examples of that leading to merger with MD Foods. But there are also examples of cooperative staying in a very traditional production which couldn't compete with the prices MD Foods could offer its members because they were not big enough towards the supermarket, they weren't big enough to exploit the new technology and so on. So that was another reason for mergers and then the third one. There are also*

*cooperatives which specialise in certain productions, and differentiate compared to the traditional range of products and some of them live and have a good life so to speak, but if they step over the line, if they try to do something that will affect the market situation of MD Foods, for instance, the pressure start. MD Foods will offer price and that has been the end to some of the local cooperatives as well. But still there are some who by means of differentiated production have a good economical situation and accept that they had to limit their activities in order to survive beside MD Foods.” (DK400)*

Thus, there has been continuing concentration of capital (hegemony) in the Danish dairy industry and also in the retail sector. However, MD Foods has developed a dominant position and uses its market position to reinforce its power with competitors and with the retail sector. It has been estimated that as a result of the dominance of the domestic industry, a premium of 10% is extracted compared to other markets (FoodGroup 1999). The concentration of capital in the Danish dairy industry has pushed the few small competitors to differentiate themselves through innovation and brands, avoiding head-on competition with their strong competitor. The Danish dairy industry is hegemonic in the domestic market and is strong relative to the supermarket chains in Denmark. Concentration of capital in the Danish industry has resulted from the drive for economies of scale. This concentration of capital in the Danish industry has facilitated the drive for further economies of scale internationally. The Danish industry has been able to earn a premium on its home market and is able to concentrate more attention and resources on its international activities.

### 9.3.2 *Global Market Links*

The most significant regulatory influence on international markets for the Danish industry has been the influence of the GATT agreement. Chapter 5 has already shown how the GATT agreement posed special difficulties for exports of cheese to countries outside of the EU. In the 1970s and 1980s, the Danish dairy industry had built up considerable markets for feta cheese in the Middle East (especially Iran). As this market involved exports to third countries outside the EU, it was very dependent on

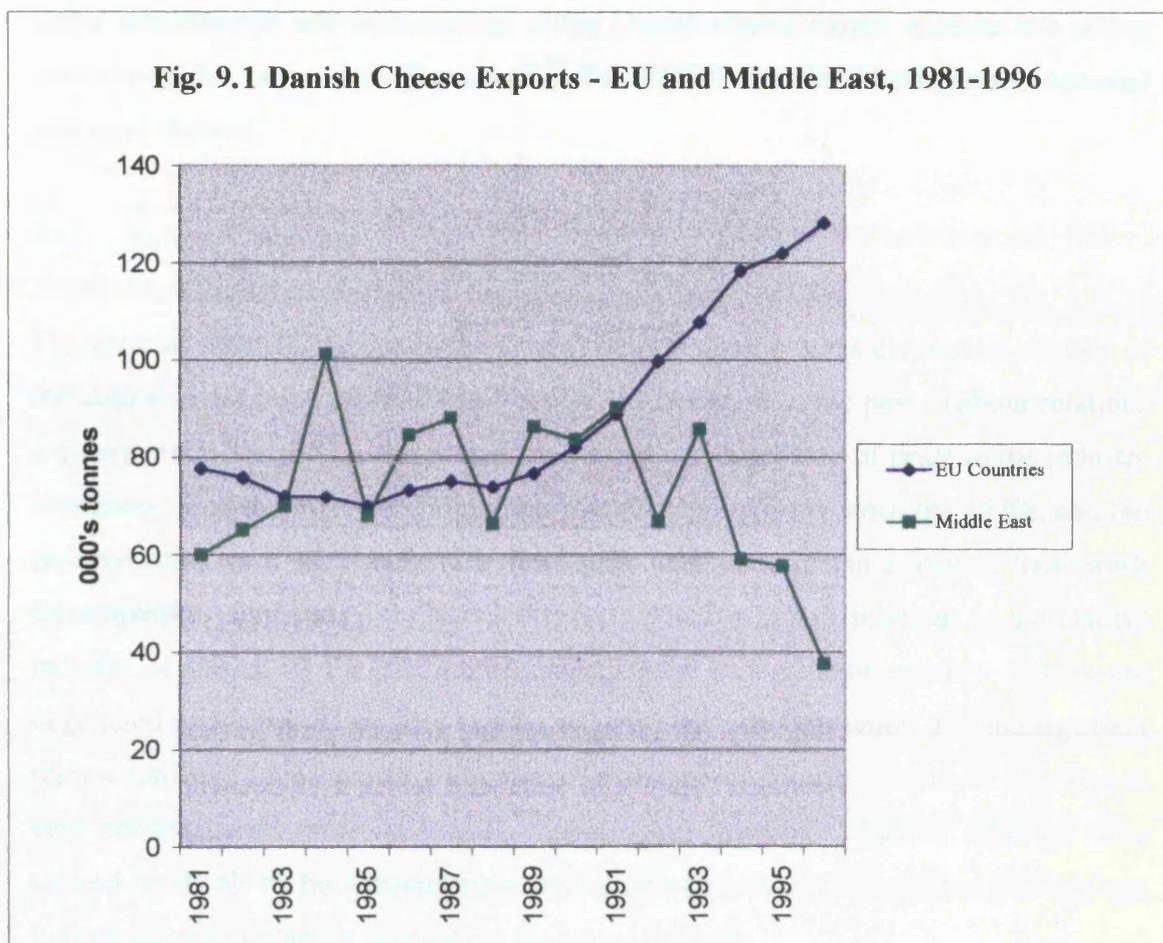
export subsidies for its viability. The Danish industry, foreseeing the difficulties of maintaining such a market in a liberalising global frame work, focused their marketing efforts on developing markets for cheese within the EU, which would not be dependant on subsidies for viability. This strategy, known as the “Yellow Cheese Plan”, has been implemented throughout the 1990s (see Fig. 9.1). In the following quotation, a marketing executive in the industry tracks the experience with Feta through the transition to implementation of the Yellow Cheese Plan:

*“Also the Feta business over the time it was very profitable in the 70s. It was also profitable in the 80s, but in the 90s there were none of those profits so you can say this has been a period where you made a lot of money, congratulations, but more or less it was over. So that was good for some years, then over a period we have changed a lot from feta to yellow cheeses and other products. So the expansion in the European market has been decided and also implemented successfully.” (DK105)*

This change has been brought about as the result of a carefully devised and implemented strategy. The strategy was implemented in advance of the GATT changes taking effect. An official in a representative organisation for the industry elaborates on this complete transformation of markets:

*“we have seen is that the .... change the stream of cheese from third countries into the European market. Quite.... only five or six years ago almost 70% of the Danish cheese export went to countries outside the EU and 30% to EU. Today its the other way around, 70% inter EU and the other outside. So the power to change the strategy and the willingness to do it and being able to start that change of strategy almost before they were forced to do it. It started already a year or two before the GATT agreement was in place because already at that time it was clear that very third country dependent countries would be affected by the GATT agreement.” (DK401)*

**Fig. 9.1 Danish Cheese Exports - EU and Middle East, 1981-1996**



Source: Danish Dairy Board

However, the switch away from fêta production also had consequences on the domestic market as price competition increased. A competitor who was not in the fêta business commented:

*“Generally, there is strong price competition in Denmark, related to pressures on prices of the main competitors also. So when MD Foods production of fêta declined, price competition increased on the domestic market, however, MD's profits have also risen.” (DK104)*

Global regulatory changes have steered a change in the markets of the Danish dairy processing industry. The industry has been dependant on fêta cheese exports to the Middle Eastern markets. However, the GATT agreement and political instability destabilised this market and the industry reoriented itself to the EU cheese market. The

major reorientation and restructuring of the Danish cheese export markets is a strong indicator of the increasing influence of global regulation in food having direct national and local impacts.

#### 9.4 Labour Relations

The form of MSR for labour in the Danish dairy industry seems distinctive because of the unique history and place of the “mejeri” in Denmark in the past. Labour relations are very much based on a consensual model and a strong sense of pride in the industry is evident. The steady increase in employment in the industry since the 1970s, and the positive attitudes to structural and technological change, results in a positive framework for employee relations. The framework for regulating labour relations in the Danish industry is based on the traditional management versus union model. Issues are negotiated and resolved by face-to-face negotiations between union and management representatives. Management and union representatives describe employee relations in very positive terms, such as ‘good’, ‘happy’, and ‘trusting’. Labour relations were viewed positively by both management and unions and several commented that this was in stark contrast to labour relations in the bacon industry:

*“All the workers are organised in a trade union. There are very good relationships between the shop stewards and the companies and the management.” (DK200)*

*“The people in the dairy industry has a good relation to their work, than many other industries. They are more satisfied with their work. We don't know for certain why!” (DK200)*

*“Yeah, we had, I would say very good relations with employees organisations and we are say, one of the most calm areas within the industry.” (DK402)*

*“Well the dairy industry in Denmark has always been fit, meaning that we stick together. We know each other almost like everyone.” (DK201)*

*“And there is, the dairies its nice to work in the dairies. And most people are happy in the dairy industries” (DK201)*

*“The relationship, I think its one of the best between the Unions in Denmark. All kinds of people, unions I think the dairy men’s or the dairy industry there is a very good, very, very good relationship. We have talked to them, and we argue between, but its very, very good relationships.” (DK202)*

The positive relations have their origins in the local, producer and co-operative basis of the industry. Referring to the lack of conflict in the Danish dairy industry, one union official elaborated on the reasons for this:

*“It might have something to do with the dairy industry in Denmark is very local originally where it used to be the farmers who owned the dairy, the co-operation and then the farmers sons used to work at the dairy, then any economical conflict would be against their own fathers and their own people so there has not been that tradition for union ship or union fights as there has been in other industries.” (DK203)*

Labour relations are positive despite the changes that have taken place over the last two decades, during which concentration of capital has changed the industry from a series of dispersed, local, small dairies to larger factory plants (see Table 9.3. and Fig. 9.2). As a result, the industry is not as closely connected with local communities as it was in the past. This increasing distance between the local community and the progressively more concentrated (and co-operatively owned) dairy industry has also been identified in New Zealand (Morris 1999). A trade union official pointed to the consequent loss of attachment:

*“Earlier, actually the family was connected very close to those 12/1500 dairies, it was actually man and wife. It’s different today. You get more distance, because of the huge big factories we are building now. So that is naturally changing. It is getting a big industry with the costs*

*that you know from other industries. You don't feel so attached to the company, as you did when it was smaller units.” (DK201)*

At the employee worker level, relations are also seen as good. However, co-operation is formally regulated by legislation and companies are required to set up co-operation committees. A senior employer’s representative in the industry described the structures and how they work:

*“Each factory, we have rules in Denmark where they have set up a committee of cooperation and where normally four people on each side and they have at least four meetings a year, normally monthly meetings, where they discuss all matters - how is the situation for the next half year? what type of investments are going to be? and all matters which have a relation to the working force. And there is an obligation to have this kind of committees in all industries and its being going very well.” (DK402)*

Reflecting a lesser concern for wage level issues, the most contentious issues identified in the 1990s were working hours, environmental conditions and education. Employees are increasingly concerned about their health and lifestyle: health through conditions in the workplace, and lifestyle through the working hours and education issues. Referring to the most contentious issues of the 1990s, trade union officials emphasised health issues in the workplace and working hours:

*“Well, the whole society in Denmark are getting more, looking more at you have to take care of your health - heavy, heavy lifting etc. and smoke and bad air in the rooms is forbidden. That has been running during the .... getting improved naturally.” (DK201)*

*“The working hours, where it was most efficient for the industry to work round the clock and of course old people want to avoid that that would be a major issue of conflict. It has been a tradition for working at odd hours in the dairy industry but the unions had succeeded in getting a good payment for these odd hours and now there is a move towards*

*more and more odd hours but the pay for it has been reduced. In other industries there is a lower payment for shift work than in the dairy industry.” (DK203)*

The change in the concerns of employees is also reflected in the comments of this senior representative of the industries’ employers organisation:

*“Now in the 90s the tendency is that no so big conflict about the salary. It’s easier to find an agreement than it was before. And the general tendency on the labour market. The main issues is other things. Beside the salary. Its pension, that’s money too. It’s the environment in the factory. It’s education on different levels and so on.” (DK402)*

In contrast to the 1990s, in the 1970s and 1980s, the most difficult issues related to wage and salary rates, as reflected in the following comments of trade union officials:

*“Yes, in the 70s and 80s the main issue of course, the main issue was mainly only salary and improvement of the salary and the other questions were of minor importance.” (DK402)*

*“In the 70s, it was all about money, the salary rate, the hourly rate, today it more social improvements in relation to working. Such as bigger pension, bigger maternal leave, and better benefits when they are sick.” (DK200)*

Where difficult issues do arise, they are addressed in a co-operative approach. A representative of the employer’s organisation elaborated on the approach taken by both sides to the issue of education of skilled workers in the industry:

*“Many of these issues are solved in joint committees between workers, the union representatives, and from our organisation. For example, the education of skilled workers and dairy men. A former joint committee*

*where the unions, there are two unions organising the skilled workers, and the employers of the other side of the table. And they discuss how to organise the education. What shall the content in the education be and this has been so for many, many years. And there is no, we are, we can always find an agreement, never go out on the different on the different issues.” (DK402)*

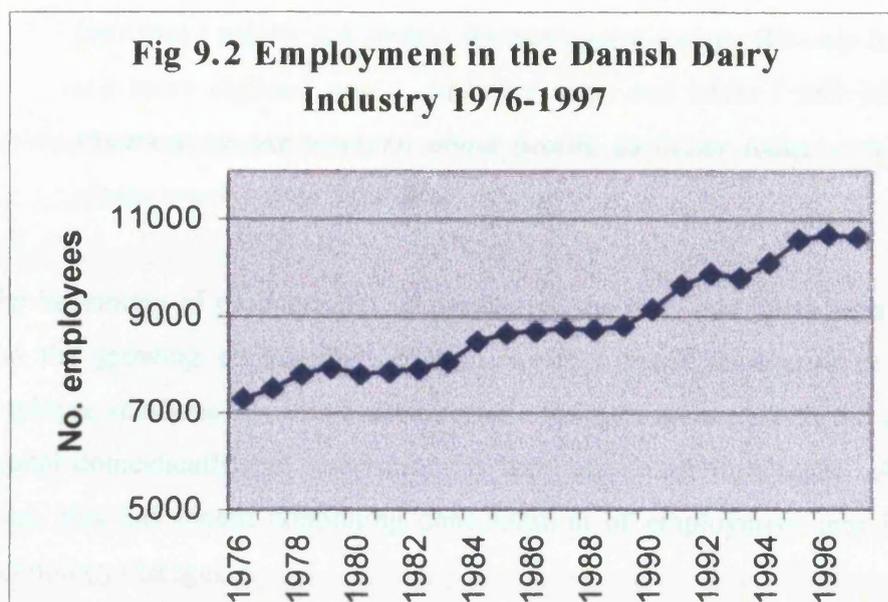
As previous sections of this chapter have shown, over the last 20 years, there has been very significant rationalisation and restructuring in the Danish dairy industry, with the takeover of many smaller dairies by MD Foods and Klover. Also many smaller plants have closed as production facilities have been rationalised (see Table 9.2). When queried as to whether these changes created a difficult labour issue, surprisingly, it did not emerge as a difficult issue. A trade union representative referring to the consequences of rationalisation for workers stressed the positive aspects:

*“the overall number of employees in the industry has been stable and maybe even increased. As we toward bigger factories, the working conditions tend to be more or less by the book an improvement on smaller sites. So in that way it has not caused a lot of conflicts. If you close a dairy and people live and work in the dairy, they suddenly have to travel 50 km or longer to go to work, it is a problem. But in a lot of the shutdowns, the taking over dairy companies has guaranteed job to the people working in the dairy they are closing down.” (DK203)*

Part of the reason for the positive attitude to change is the context of employment increasing in the industry steadily from the 1970s to the mid 1990s (see Fig. 9.3). However, even if restructuring does not seem to be a big labour issue in the industry, it is recognised that it causes difficulty and stress for individual workers, as identified by a trade union official:

*“There is a problem for .. you know when they close down the factories or the plants it become more stress for people to work there. They don't know what will go on .... They don't know. And you know when it is so,*

*you can argue with your manager or so. You get angry, stressed. That's a problem for the moment.*" (DK202)



Source: Personal Communication from J.M. Rasmussen (1999)

Extensive technology changes were involved in the concentration of dairy processing (in achieving economies of scale) and in the change from feta cheese production to other specialised cheese production. Agreeing technology changes with the workforce was not difficult. In response to a query about the difficulty in agreeing technology changes with employees, a senior employers organisation representative commented:

*"No, not at all. In some industries yes, but not in the dairy industry. We have, as I mentioned, we are gone down from maybe in twenty years, from 1,000 factories to 100 dairy firms and there have been no problems with that."* (DK402)

The concentration of capital in the industry has also had consequences for industrial relations. From the trade unions' perspective, it has made negotiations more difficult as there are only a few employers; on the other hand, working conditions have improved with new and more up to date processing plants.

*“I mean it was easier at that time. It is more difficult now. At that time we have a lot of employers. Today we only have two. MD and Klover. At that time it was better for us to go in and say, we would like to have a little more salary, a K or so. We can't get it today. We only have two. It's more difficult now. And that way, and when I talk about the situation for our workers, about health, its better today with the big plants, much better.” (DK202)*

The hegemony of producer-led accumulation, the rural and local basis of the industry, and the growing employment context together result in a positive framework for employee relations. In this context, restructuring associated with the concentration of capital domestically and internationally has been easier to achieve. At the employee level, this has meant continuing concentration of employment into larger units and technology changes.

## **9.5 Financial Relations**

Chapter 7 showed how as companies internationalise their activities through exports, acquisitions and production abroad, they also internationalise their financial activities. Thus, careful management of foreign currency is important, and the activity in exports and foreign production links companies into the global financial network. MD Foods has focused on this area and the financial institutions regard this as an important aspect of their success. A senior bank executive commented on the dairy industry's involvement in the international money market:

*“They (the industry) are very active, especially one of the dairy industries, MD Foods is very active abroad, with export. Export is very influenced by currency movements and interest movements and therefore of course they are also interested in hedging possibility, trying to hedge their position, short, long term hedging possibilities, and also interested in, they have a very big cash flow of course so consequently they are also very interested in the best way to optimise the cash flow the interest on their cash flow.” (DK300)*

Also, the success of MD is attributed to their long term strategy of retaining funds and consolidating their business. Due to the particular structure of co-operatives in Denmark and their difficulty in raising funds (see section 9.2), the strategy of retaining profits has been essential in enabling MD Foods to expand and acquire other dairy companies in Denmark and abroad. This has to be done astutely, as the farmer shareholders would wish that the maximum of funds be passed back to the farmer through a higher milk price or an end of year bonus. A senior bank executive elaborated on this management of the financial resources:

*"I think MD have been very clever also at that side. But they have had a lot of attention on their financial side and they have had clever ways of doing the accounts so that the farmers are perhaps not always been able to see how wealthy they in fact are ... .. Its always a discussion among the company and the farmers how much would have to be paid back. And at that point I think that the dairy industry in Denmark has been clever about putting the money in parts of their activities so that the farmers has not been able to see how much in fact they have earned, because with accounting principles are using or putting some of the money on account where you can't see it as easily."* (DK301)

As the dairy companies internationalise their activities, they (particularly MD Foods) internationalise their financial activities. Domestic banks are no longer adequate to provide the services required and the bigger international banks may have more competitive rates for raising finance. The industry, therefore, has become linked into the global financial network and uses expertise in these banks to manage its global currency movements. Two senior bank executives confirmed these global links:

*"I think they use a lot of banks in London, especially when it comes to hedging possibilities and you could say that its part of the hedging."*  
(DK300)

*“When you are one of the big Danish dairy companies and you need to raise money, of course you will call your Danish bank, but you will also call a number of international banks.” (DK302)*

Smaller companies or companies that have not internationalised do not have access to the same international sources and, therefore, suffer a competitive disadvantage. Referring to small companies a bank representative noted:

*“They don't go international and I think they would have to pay a bit higher margins.” (DK301)*

Through its international activities, the Danish industry, and in particular MD Foods, has become linked into the global financial network. MD Foods has placed a lot of emphasis on managing their international financial activities to maximise their returns and this has been an important part of their success.

## **9.6 Global Links**

As in the case of Ireland, a major feature of the development of the Danish industry in the period of the study is the increasing globalisation of the industry. In sections 9.3 and 9.5, the increasing global integration of the industry through market and financial relations have already been examined. In this section based on interviews with the key actors, the global links developed from the internationalisation of the Danish industry are examined

### *9.6.1 The Drive for Economies of Scale*

Increasing integration into the global trading regime is a major feature of the Danish dairy processing industry since the 1980s. Fears of insufficient economies of scale have driven the concentration of the Danish industry as well as the internationalisation of activities. It is a global phenomena; for instance, similar restructuring to generate economies of scale are taking place in New Zealand and Australia (see Table 6.5). Industries in European countries have been slower to achieve these economies of scale,

with the exception of Denmark and the Netherlands. This situation in Denmark, however, is unique, in that the largest and dominant company-MD Foods was set up specifically to achieve economies of scale. As one senior industry executive commented:

*“MD exists today because of economy of scale. That was the whole philosophy of the company is small dairies joining each other to make them more profitable than the rest”.* (DK105)

A trade union official pointed to economies of scale as a means of protection for survival:

*“It is in order to protect their own situation, if they don't expand, they will die. They have to compete against the other European dairy companies. If they don't succeed they will disappear.”* (DK203)

In countries with relatively small domestic markets or supply bases, internationalisation of activities is necessary to achieve economies of scale. When competitors have achieved economies of scale, it may be too late to match or exceed them. Therefore, economies of scale as a driver of concentration and internationalisation are significant in plant closures and the relocation of production - a quest that never ceases as companies try to keep up with or ahead of their competitors. A senior dairy company executive commented on this quest, and its impacts on political and business views:

*“And we just jointly agreed to build another new cheese dairy, that will produce over 5000 tonnes of cheese and that means that there are six or eight smaller dairies that will lose within the next two years. And so you are never finished, you know. You keep doing it all the time and there is always more to be done ..... Politicians like you know to preserve the structures, they like to see the little factories and the little villages and so on and so forth. And the attitude that we have taken has been totally different”.*(DK102)

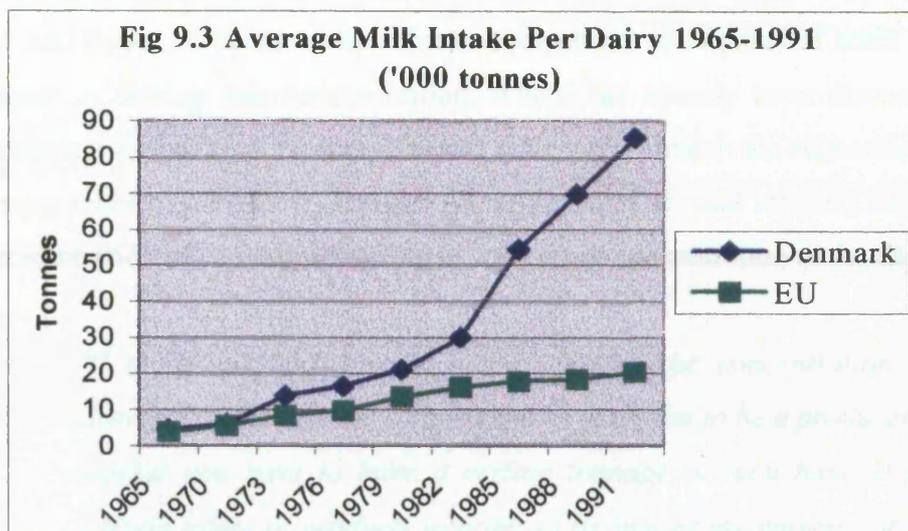
**Table 9.3 Danish Industry Structure 1981-1998**

	1981	1985	1990	1995	1998
No. Processing Plants	296	184	121	97	90
Employees per Plant	27	47	76	109	115

Source: Derived from Danish Dairy Board, Mejeribrugets Arbejdsgiverforening sources

As discussed in Chapter 7, in the Danish industry economies of scale have already impacted on production relocation, transnational production co-ordination and concentration of production activities. Fig. 9.3 and Table 9.3 show the extent of continuing structural change in the Danish industry. For example, between 1981 and 1998, the number of processing plants declined by over 200, while the average number of employees per plant increased by greater than a factor of four. A senior dairy company executive gave an example of economies of scale achieved in co-operation with a Swedish partner:

*“For instance you may know that we have a certain co-operation or budding cooperation with Arla, the big Swedish dairy group and one of the first significant examples of how that works has been shown over the last year through the formation of a joint company for chocolate and coffee powders, what we call ground products. This is something that we are both involved in and we have each had a factory, now we decided jointly that we would close the MD Foods factory in Denmark and transfer all production to .... plant in Southern Sweden. And so now we have twice the production or more in one place instead of having it in two and obviously thereby we are being far more efficient and thence competitive. That type of thing will grow undoubtedly.”*  
(DK102)



Source: MMB (1978-1994)

A senior executive speaking about his company's activities in the UK, highlights the impact of economies of scale on employment:

*"We took over companies (in the UK) that were in total employing 4,000 people. Today we are employing 2,200 people, we are doing more business that we did with the four companies, and so we have done a lot within the company to rationalise it, to sharpen it up and so on and so forth."* (DK102)

The quest for economies of scale has been a major driver of change in the Danish dairy industry. Economies of scale have driven restructuring in the domestic industry and internationalisation of the industry.

### 9.6.2 Global Links through International Accumulation Strategies

A significant factor in the growing integration of the Danish industry into the global regime has been the shift from a domestic to an international orientation in the industry. The Danish industry has internationalised its activities significantly since the early 1980s, both within and beyond Europe (see Chapter 7.5). In parallel with

internationalisation, concentration within the domestic industry was pursued vigorously by MD Foods. The desire to achieve competitive economies of scale was also a key factor in driving internationalisation, which has already been discussed. A major motivator in the drive for economies of scale was to match the economies of scale of its major retail customers in Europe. A senior civil servant stressed the importance of concentration of capital in retailing as a driver of concentration in the dairy industry:

*“I think one of the main factors is that the concentration on the distribution side is now so large that if you want to be a producer on the market you have to have a certain tonnage, so you have to have a certain range of products in order to be interesting enough for the big product chains, to conduct business with.” (DK800)*

In the international market, the concentration and internationalisation of retailing has shaped the strategy of the dominant company in the Danish industry - MD Foods. Developing close relations with these key customers is seen as vital. Concentration and internationalisation in retailing has driven concentration in the Danish industry as MD has sought to achieve the scale and strength to deal with the larger retailers. At a conference in 1998, a senior executive laid out their strategy vis-à-vis changes in the retail sector:

*“We at MD Foods share the expectations that the coming years will see continuing structural adjustment in other European countries, so that by the year 2010, there will typically be one to four leading dairy suppliers in each European country while at the same time, the largest groups will expand across national borders..... MD Foods’ objective is to establish the group as Northern Europe’s leading dairy company through, for instance the expansion of own companies at home and in the rest of the world..... MD Foods strives to be the preferred partner for the strongest players within the European retail trade and a competent supplier of more specialised products elsewhere in the world.” (Nielsen 1998, Text of Paper, 7,11)*

A senior marketing executive elaborates on how concentration of capital in retailing has led to a specific strategy with a key customer:

*“It's getting worse. Because what's happening is that the retail is of course getting stronger and they are of course cross border and what we have said in MD Foods is that the strong retail customers they are those who we want to sell to. So we have realised that they are getting stronger and they are going to survive, those who are strong... .... We have to organise after that, we have to develop products and we have to develop in co-operation with those customers... .... This is a must for us and that has led to the decision today that Aldi is our major company. I think it is number one. We will be there with a discount. We are one of the major suppliers of cheese products to Aldi today.”*  
(DK105)

Developing this kind of close committed relationship with a key customer has driven a need for flexibility in production planning and a need to liaise with the retailer at all stages in the production cycle. Long-term intensive relationships, in which both suppliers and retailers invest heavily, known as ‘relational contracting’, has dominated retailing in Britain for over a decade (Foord, Bowlby, and Tilsley 1996). These closer links result in much tighter integration of the supply chain regardless of international boundaries. The senior marketing executive expands on the practical implications of this strategy:

*“we have to be much more flexible in production as well as planning product-wise. Being such an important customer, if they come and say we must have cream cheese and we need sliced cheeses, it is our philosophy that that must be whatever and then we cannot say this is what we're doing. And you have to take it. It is very much a dialogue... .... And that means relating to them on different levels. You have sales, you have quality you have transport, logistics and so on, so you have on many layers finance, electronic transfer of information and so on, many layers you have the entrance to the*

*customer. And sometimes they have their own ideas how we should make our components and how we should label the cartons, what is the information you have to put on. What is the printing equipment. 20 years ago we say we have one label and today we also have a dialogue about a lot of practical things which influence quite a lot.” (DK105)*

Concentration in retailing, allied to the necessity to be close to the customer, were identified by this senior executive in the dairy industry:

*“Today the feeling is very clearly that you must follow your products as far as you can to the final consumer and that means you have to have your own people on the spot, they have to have the ... sales and marketing job on the ... and increasingly you must be able to influence distribution, you must take advantage, you must take responsibility yourself for bringing your goods to the final consumer as far as at all possible. That is the overriding rationale for this thing.” (DK102)*

There are also advantages in internationalisation, in that the distribution system of the company taken over can be used to distribute products available within the wider company. This point was also made by a senior dairy executive:

*“But in particular it has become a very important distribution system for Danish products and the fact that we are the people in Saudi Arabia who can distribute well and cheaply is a tremendous background to a very, very thriving business that we have there, a very thriving, very profitable business that we are running in Saudi Arabia.” (DK102)*

For example, MD Foods’ use of its subsidiaries in Britain for distribution of its Danish products is worth 10 ore per litre of milk, a point made by a farm organisation official:

*“but at the same time MD Foods, claims at least, that the position of MDI in the British market is of major importance to the market*

*opportunities of MD's production in Denmark. The activities in MDI created benefits that were worth 10.ore for the milk price in Denmark"*  
(DK500)

However, the Danish industries' experience of internationalisation has not been without difficulties. Foreign investment in foreign production and distribution in Saudi Arabia and the UK resulted in losses. As a consequence of the losses in the UK, significant restructuring of the finances of MDI had to be undertaken (see section 9.5). In the case of Saudi Arabia, in the view of a senior executive, persistence has paid off:

*"I think that the experiences that we have had in Saudi Arabia is a good one because that shows first of all that it takes a lot of time, you have to persist, you have to accept that you will lose money, and maybe a very big sum of money at the outset but in the end you can build up something which is worthwhile having."* (DK102)

Boon (1998) pointed out that MD Foods did not take the peculiarities of the local market into account in the Danish internationalisation experience. An executive in a competitor company of MD, involved in exports and foreign production, pointed to the need for adjusting one's strategy depending on the local market:

*"However, this varies from market to market, we have found in some markets a one man operation can deal with a big market, whereas in another country, we may need 20 people."* (DK104)

While management can see the long-term benefit in persisting in foreign markets to achieve the scale and mass in the market, the farmer has difficulties in bearing short or medium term reductions in milk price. It is this dilemma that lies at the heart of a contradiction in producer-led accumulation that engages in globalisation /internationalisation strategies. This dilemma is elaborated by an executive of a supplier company:

*“for instance MD Foods International they have, they are situated in the UK where you know that a lot of their, they are competing a lot with the big UK producers in getting a big part of the milk market, where they are competing and they are lowering and lowering prices and they have lost a lot of money, MD Foods International, which is a subsidiary of MD Foods. And there have been a lot of discussions now ongoing here during this general meeting now here, are they willing now, are the farmers now willing to invest more money in the UK market. Because they don't understand why should I as a poor farmer invest money in the UK.” (DK701)*

An indication of the increasing transnational links in the industry is the development of a Dairy managers group, which facilitates the mobility of management within the European industry. A senior representative in an employer's organisation for the Danish dairy industry explained how the managers group operates:

*“it is an association of Dairy Managers in Europe. There are eight countries and we are members there and we try to help each other with exchanging people - if some people from Switzerland or Holland want to come to Denmark, they can call me, I'll help them. If we want, some young people want to go to Germany or Switzerland or something, I can call my colleague in this organisation and they will try to help us. And we have the same thing in the countries (Norway, Sweden, Finland and Iceland)”. (DK201)*

Since the mid 1990s, a network for skilled dairy workers has also been established, called AEDIL, under the auspices of the International dairy federation (EDM 1995). Participating industries have developed a passport, which details the levels of qualifications or skills of the individual and allows mobility between the industries in Europe.

In Denmark, there is a low level of involvement by foreign owned companies in the Danish dairy industry. The indigenous co-operatives have always controlled the major portion of the milk supply and with a well-developed industry paying a very competitive price (see Table 5.14) to the producers, there was not any incentive for the foreign owned companies to become involved. An executive in the indigenous industry explained this competitive advantage:

*“If you are Nestlé and you want milk from Danish farmers then you'll have to be at least the price you pay and there we have a slight advantage in the sense that whatever we are paying for milk is a function of milk going into liquid milk which is still a profitable business, whereas dairy farmers added value product like cheese is whatever happens milk powder is whatever the lowest price and if you look at what our production of milk powder products will contribute to the milk price that is someway below what we would pay to our farmers. So that was maybe a long way round, there's no way they can compete in that respect.” (DK106)*

However, the desire to exclude foreign owned companies from the industry also stems from a desire to control their own milk. While in many countries the indigenous industry or local co-operatives dominate the milk supply, foreign owned companies are major customers of the co-operatives, focusing on the value-added end of the dairy supply chain. However, in Denmark, the co-operatives control the majority of the milk right to the retailer. Thus milk is viewed as a valuable resource by the Danes; a senior executive in the Danish industry expressed it as follows:

*“Putting it bluntly we want to sit on the milk, we want to know what happens to it, we want to know that nobody, no one outside our circle of owners can do anything with it that we don't want them to.” (DK102)*

Thus, the shift to international accumulation in the Danish industry has been driven by the desire to achieve economies of scale and, more recently, to match the scale of its major retail customers. As a result of the drive for scale, the industry, in particular MD Foods, has become more integrated in the global dairy product supply regime. This is evident in the integration of the industry through labour, financial, market and intra-company links.

### 9.7 State Intervention

The shift in the focus of decision making from national to the supranational stage has changed the degree of involvement of the Danish Government in agricultural and dairy industry issues. The entry of Denmark into the EEC in 1973 resulted in an *increased* involvement of the Government in dairy industry issues. Prior to entry, agricultural interests dominated the policy context in Denmark. However, since entry into the EU, the Government has had to become more involved in these issues because it represents agricultural *and* dairy interests in the EU. A senior civil servant commented on the increased Government involvement:

*“Since the accession to the Community I think we have moved more into a situation where Government influence is greater than it was before. I think it may sound a little strange but I think before the accession to the community the agricultural sector was so great and so important for the Danish economy that they more or less thought that this is how it has to be or that was the issue.” (DK801)*

As a result of entry into the EU, the government has the lead role in relation to public policy matters; however, the government and the agricultural organisations (including the dairy industry) work very closely together. A politician with a keen interest in agricultural and dairy issues commented on the changing role of the Danish Government:

*“it has changed in a way that before the EU membership the agricultural organisations had a stronger position by running the system themselves, while after Denmark joined then the Ministry and the public agency has had the lead being the stronger part because they are formal partners in the EC process, but still, they have very, very close co-operation on almost all kinds of things so, you would say that before 1972 the Ministry was the client of the organisations so it is the other way around now, but still it is very close because the interests are the same.” (DK901)*

However, in recent times, the influence of the agricultural sector has been challenged and the Ministry has moved from representing farmers and the agricultural sector to representing society in general. A senior civil servant elaborated on this changing relationship between agriculture and the Danish Government:

*“It’s only in the later years that the farming communities political influence has diminished so much that you actually have dialogue between the farming community and society as such, it’s relatively new, because before that time the farmers were good for Denmark and vice versa..... that has changed in the last 15 years, that really changed, the ministry as such is really societies representative vis-à-vis the agriculture rather than agriculture’s own ministry in government.” (DK800)*

For policy matters in the Danish dairy industry, it is clearly accepted that the Danish Dairy Board is the responsible, relevant organisation. It is also the organisation where suggestions or initiatives about dairy policy matters can be directed. Referring to the sources of initiatives on dairy policy matters, a former Minister for Agriculture pointed to the importance and the power of the Danish Dairy Board:

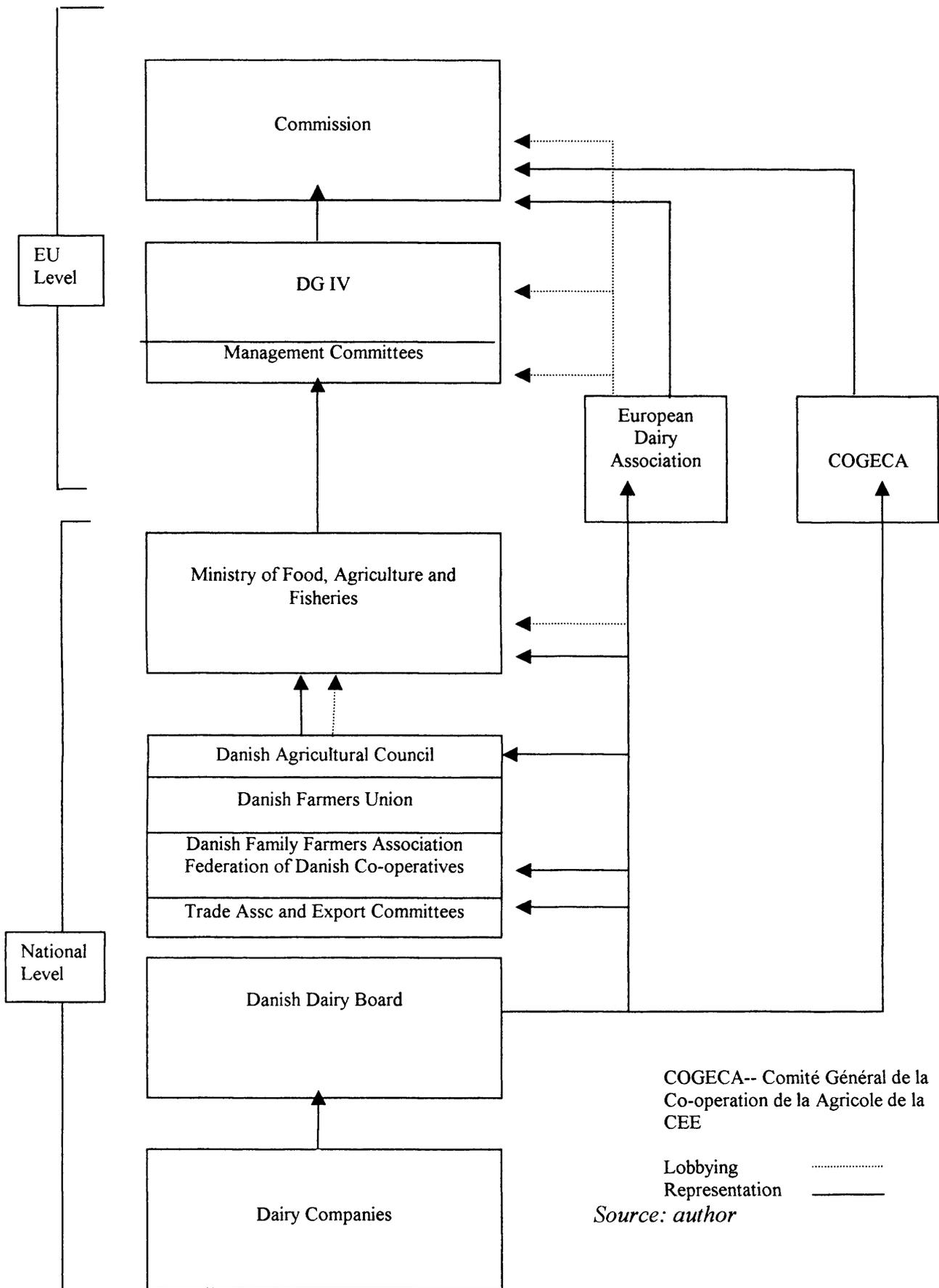
*“Normally it came from their own organisation, the Danish Dairy Board, that was the main part to take the initiative, and they have the*

*great power because they had a certain political wideness, that they were representing their members and in the mean time representing the dairies themselves, so that means a lot when you have to make a political decision, that you are in line with them.” (DK900)*

The Danish Dairy Board has played a very important role in the development of the Danish industry and this is summarised in Fig. 9.4. As well as policy matters, the Board has been a key influence on the direction the industry has taken in relation to seasonality, increased emphasis on cheese production etc. It is evident from Fig. 9.4 that a clear representative structure exists in the Danish dairy industry with the Danish Dairy Board playing a pivotal role at national and EU level. However, as concentration of capital has continued, influence has shifted from the Board to the dominant company, MD Foods. This shift derives from the sheer scale of MD Foods in the industry and the fact that it has a majority representation on the Danish Dairy Board. An official in a representative organisation pointed to the shifting power relations:

*“It is more a shift, its probably been from the branch organisations to the individual cooperatives because the result of mergers has been that MD Foods today is that big that they can handle issues that used to be handled by the Dairy Board, they can do it themselves. And that probably has been the change, that the power shifted from the jointly or the apex organisations to the individual companies.” (DK400)*

Fig. 9.4 Danish Dairy Processing Industry Policy Network



An example of the domination of MD Foods in the industry arises in the preparation of the industry's position on policy reforms to the CAP. MD Foods was able to determine the policy by virtue of the fact that it dominates the Danish Dairy Board. An official in a high-level representative organisation elaborated on this example:

*“To put it the other way, the bigger a company gets, the more independent minded it gets so when you are, MD Foods and Klover are not represented as companies in the council of agriculture but they are represented by the Danish Dairy Board, but since they are so big they dominate that totally, an example would be when we had or discussion of food today policy, that ad hoc committee last winter, the Danish dairy Board was a strong advocate of a two tier price system for milk until MD Foods did some thinking and concluded that it might be better if we had a full reform and that is lowering prices, 20% to 25% then they would be free of the GATT limitations to export which is a dramatic consequences for Denmark. By MD Foods changing their mind the Danish dairy board changed their mind, they in the end persuaded the rest to the same view.” (DK403)*

There has also been an increase in emphasis of influence from the national to the European level. More resources are put into lobbying and influencing at this level. This is another indication of the increasing global links in the industry and the increasing recognition of the emergence a European dairy industry rather than a collection of national industries. It is also a reflection of the decision making and power in relation to European dairy policies being concentrated in Brussels. An official involved in lobbying in the Danish Dairy industry pointed to the increasing focus on policies at an international level:

*“But in a period of ten or twenty years what has come up is much more the international level also in ... So that we at least offer as much time on international organisation influence channels than we do on the national channel through the Council and through the Minister. Today*

*we have I think five or six people here in this house going to Brussels to meetings in European Dairy Association there and other international organisations, trying to get all the international, or all the National Dairy Councils together in put opinions and things on the agenda towards the Commission and the informal ways of working with the Commission has been more and more important, especially from the last ten years.” (DK401)*

There has also been increased focus on using the EDA as a source of influence at European level. The EDA has become the preferred conduit for the national industries in dealing with Brussels (see also Chapter 8.7). A lobbyist in the Danish dairy industry commented on these developments:

*“There was a change in the structure of the dairy industries international organisation two or three years ago and the EDA was the result of the merger.....making it stronger and I think, at least in Denmark and in the other countries where exporting questions are rather important, more and more priority has been given to working through EDA instead of working through own national authorities towards the Commission ... .. the last ten years I think we have seen the Commission getting more and more open towards that sort of ....organisations, like EDA. Because the Commission has realised that things are getting so complicated that the... they need explanations from these organisations to get a feeling of what is going on out in the industry, what is happening in the industry when we do this or that. So we depend on that but they also depend on us.” (DK401)*

The policy context for the Danish industry has evolved from a situation where agricultural organisations were dominant to more active involvement by the state. The Danish Dairy Board has played a key role in representing the industry and influencing its development. However, concentration of capital and the emergence of the dominant company, MD Foods have reduced its influence and role. Similar to the Irish industry,

the Danish industry has developed through the EDA its specialist influence channel at European level.

### 9.8 Hegemony and the Outcome of The Changing Mode of Social Regulation

As argued in section 8.8, an important feature of an MSR is the emergence of an individual, group or coalition of organisations and/or institutions that are hegemonic. As in Ireland, in the Danish industry, an ‘old’ regime was followed by a period of transition and a new regime has emerged. Up to the foundation of MD Foods, an old regime based on private dairies and liquid milk-based dairies was dominant. The emergence and growth of MD Foods can be traced to the restructuring of a highly regulated dairy industry that had existed from the 1930s to 1973. Under the old regime, which had been relatively stable, dairies had monopolies on sales and delivery of milk in cities and towns throughout Denmark. On joining the EEC, this system was abolished (see also Chapter 7.4). The old system however, had given rise to a segmented industry with two hegemonic groups. The differing segments of the industry prior to deregulation are described by an experienced dairy industry executive:

*“For instance when we (MD Foods) started there were a very clear difference between the ... you had a number of factions within the industry, you had the private dairies that were producing branded cheeses and making a lot of money, you had the licensed liquid milk suppliers who had franchises in each individual city and you know were sitting pretty on that and all they had to do was invite the Mayor once a year you know for lunch and then they decided that maybe it was time to increase the milk price by 5% or something like that. And then at the other end you had those desperately poor dairies in the villages on the west coast who were making very little money, who were producing butter for bulk sales and so on. And you know MD Foods changed all that. They went into the cities, they challenged the monopolies, and they very quickly bought one of the biggest private cheese dairies and thereby suddenly had a foothold in that lucrative market and so. They*

*did a lot of things that people didn't like.... you know they had a perception of where they were going, they had a lot of staying power and I think that was."* (DK102)

The old hegemony revolved around the private dairies and the liquid-milk based dairies in the cities that had a monopoly. As has been shown, MD Foods began from a merger of a number of smaller western dairies (and was initially known as Dairy Company Denmark) and quickly moved in and took over some of the urban based dairies that had operated under the old regulatory system. Deregulation of the old system, and the emergence of MD Foods, began a long period of instability and transition as the previously stable regime disintegrated. Out of this transition period emerged a new hegemony. A feature of the transitional period in the industry was a degree of conflict between different companies. Previous ways of doing business were challenged and, as pointed out below by an experienced industry executive, MD Foods were the new company upsetting the previously well-established system:

*"But obviously there was a power struggle particularly at the time when MD foods and the Dairy Company Denmark as it was called at the time when they were the naughty upstarts who ran around and you know challenged all the traditional values of the industry and you know spoiled the power structure that existed."* (DK102)

**Table 9.4 Development of MD Foods 1970-1998**

	1970	1980	1990	1995	1997	1998
MD % of Danish Milk Supply	9	28	66	67	72	90

Source: MD Foods

This period of the growth and emergence of MD Foods as a significant company (see Table 9.4) in the industry is characterised by some as a 'bloody' period, with much division and conflict. A politician and former academic with a special interest in the dairy industry elaborates on the degree of division in the industry during this time:

*“And therefore it was rather bloody to some extent the fight from the mid 60s to the beginning of the 80s where the MD Foods actually was created, started as a competitor to all the other Danish companies and everybody identified themselves against this. So, it was really by all means but the main point was that the market for dairy products was internationalised more. ....they (MD Foods) were successful but they were smart and some would say too smart, using all kinds of tricks, some of them well, not for the daylight.” (DK901)*

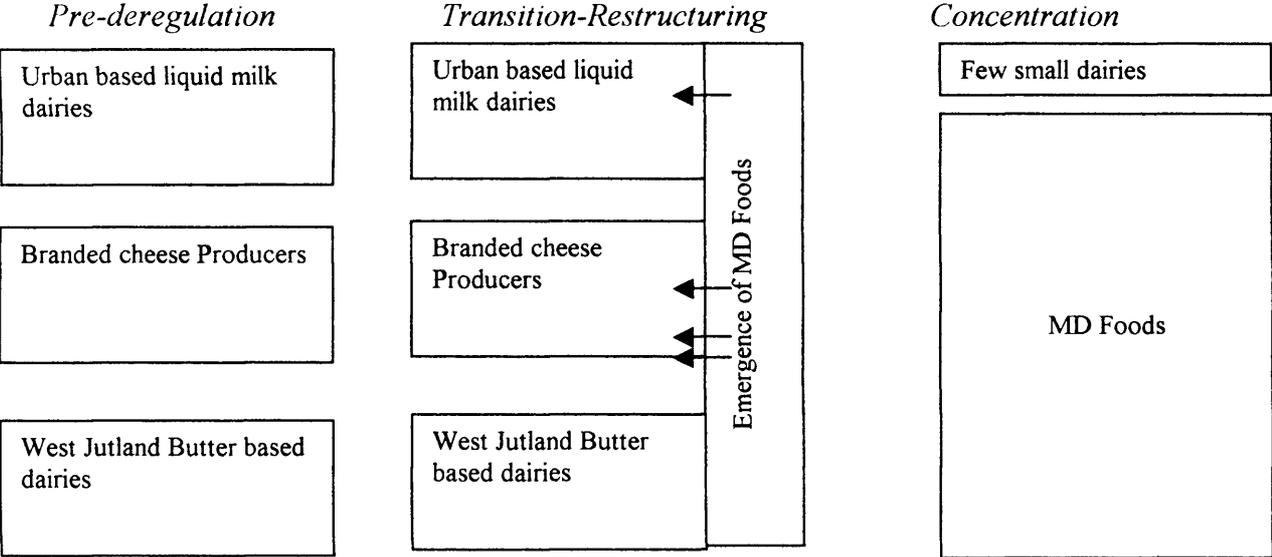
From the early 1970s until the early 1990s, the industry had been marked by intense competition, especially between MD Foods and the other dairy companies. In the early 1990s, following intense rivalry over milk between MD Foods and Klover Maelk, pressure from the farmer suppliers resulted in an alliance between these two companies in relation to milk assembly and the supply of goods to Danish supermarkets (see above). An executive in an industry representative organisation described the background to this alliance:

*“Before this alliance or co-operation you had a situation where they were taking milk from each other, one had a surplus in Zealand and needed it in Jutland so they were passing one another on the ferry and that created anger among the farmer saying we won't have our co-operative playing games like that, an outsider in the end organised a big meeting and the pressure was so intense that they had to come up with something, and the result was this agreement.” (DK403)*

As a result of this agreement, both companies co-operated in the organisation of production and the supply of goods to the supermarkets in the home market. As Klover was not involved in the export markets, it did not affect the export market or international activities of MD Foods. A trade union official described the new situation:

“So when a new dairy is built for example a cheese dairy, it is coordinated between the two companies. So they don't each build a new factory - they go together and then they share the benefits according to internal rules. But they are still two companies.” (DK201)

**Fig. 9.5 Danish Industry Structural Change**



Source: author

At the end of this period, MD Foods had emerged as the dominant company and the conflict and instability had receded (see Fig. 9.5). With the process of concentration coming to an end, an experienced dairy industry executive explains how the conflict declined:

*“The declining conflict due to less players, MD have been successful in taking over most of their competition, therefore there are less players and less conflict. There are not too many left to fight with.” (DK104)*

As concentration of capital has continued, MD Foods has come to totally dominate the Danish industry. It is hegemonic in all respects:

*“That is naturally MD Foods. That is total domination.” (DK201)*

*“There are practically no body other than MD, I mean clearly”  
(DK103)*

*“Of course MD Foods, in terms of power, size, its financial resources,  
it is the major player.” (DK104)*

*“It is definitely MD Foods. They form the agenda, that's the case.  
Some of the others, I ... cruel to these, but some of the others they  
follow. They respond to what MD does. So the agenda is definitely set  
by MD Foods.” (DK400)*

MD Foods has come to dominate the domestic market, the policy network and the milk supply. In addition MD Foods has also been successful from a producer-led accumulation perspective (despite dissatisfaction with difficulties with its UK operations), paying a good price for milk to its farmer suppliers (see section 9.4.3). A senior executive in a supply company elaborated on MD Foods and the milk price paid to farmers:

*“They were just simply for many, many years they were paying, maybe  
not the best price, but something like that. So, of course, they attracted  
good farmers to move in and amalgamate with MD Foods because they  
got a better price for their milk, but on the other hand the process was  
very efficient in structure, the whole sector, from a local point of view  
we criticise more about closing down the small dairies but I think it has  
been a necessity to make production more efficient.” (DK801)*

The emergence of MD Foods, with its dominance in the domestic market and strong position on the European market, has enabled it to pay a good price to the milk producer. The success of producer-led accumulation has also been a key factor in keeping international capital out of the Danish dairy industry. However, this dominant

position and the good returns to producers is at the expense of consumers in Denmark. Therefore, producer-led accumulation has been successful in channelling resources to the producer. A politician points to the hegemony of MD Foods in the domestic market and its success as a counter force to foreign capital:

*“I have no doubt that the creating of the MD Foods is one of the best things that ever happened for the Danish dairy producers because it so strong in Danish market that it is able to set the conditions for the market and even in European comparison a rather large company and therefore actually able to compete with Danone and all the multinational companies, so that they actually don't have a position in the Danish market.” (DK901)*

In the Danish industry, a stable regime existed until the early 1970s. Deregulation following entry to the EEC and the emergence of MD Foods with a focus on concentration of capital led to a period of transition and conflict. The emphasis by MD Foods on economies of scale and concentration of capital, combined with positive returns to its producers, contributed to its emergence as the dominant company. Out of this a new regime has emerged with MD Foods as hegemonic. The sheer concentration of capital into one company in the Danish industry has made MD Foods dominant in almost all aspects of the industry.

## **9.9 Conclusion**

Again, as with the Irish industry in Chapter 8, conclusions are drawn on the form and outcome of the MSR for the Danish Irish dairy processing industry, based on the analysis of key actor interview material and relevant secondary data. The changing form and outcome of the MSR are discussed using Mardens (1992) five elements and hegemony (Fig. 9.6).

In relation to the *market and competition*, despite significant domestic concentration of capital in retailing, the Danish dairy industry has remained powerful and has resisted

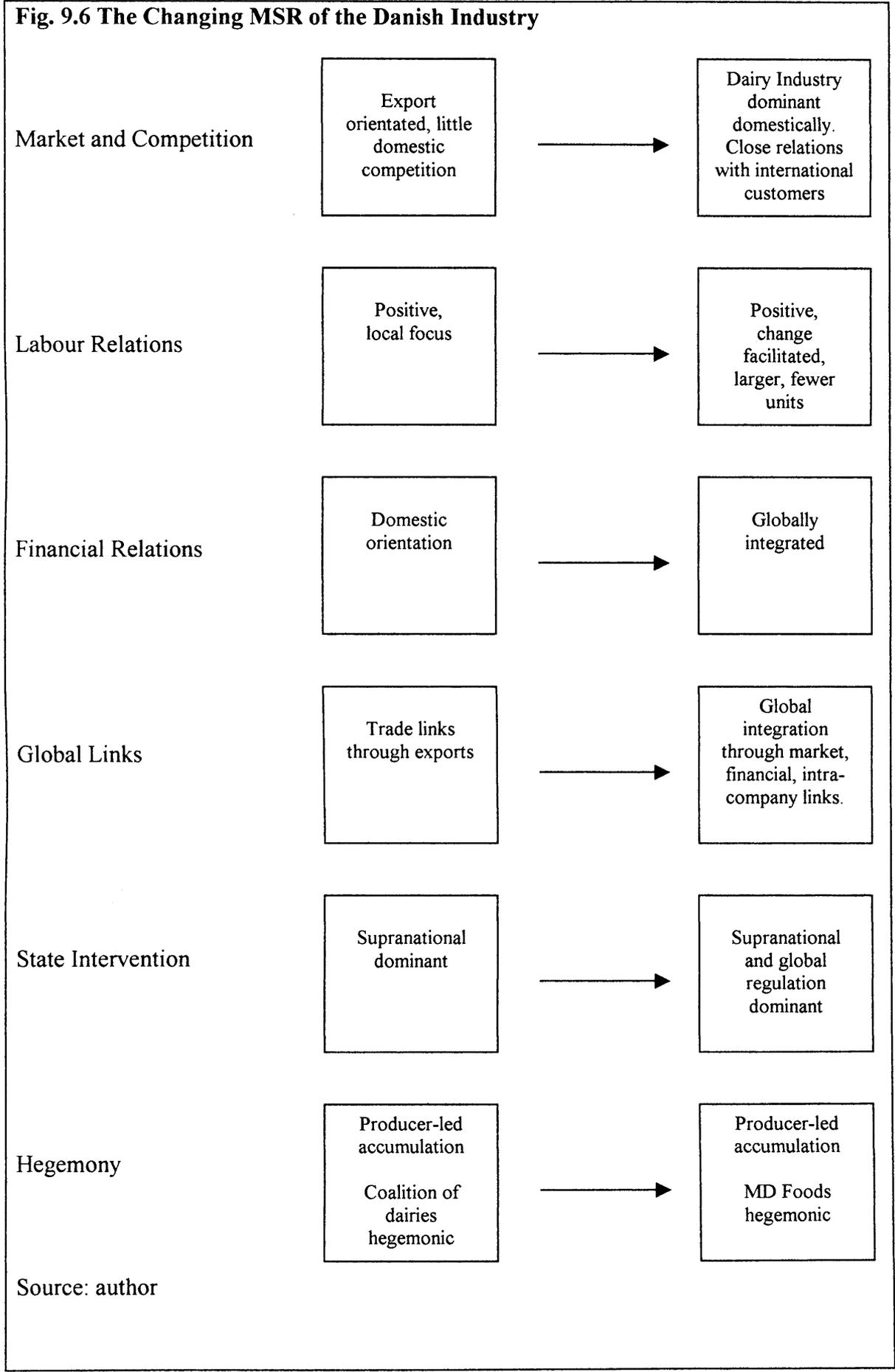
the introduction of own-label products while maintaining high margins. Internationally, the industry has reorientated its exports within the EU in anticipation of unfavourable global regulation. In addition, the major dairy company - MD Foods has developed close links with key retail chains in Europe. Continuing concentration in European retailing has further reinforced the need to continue to achieve economies of scale.

*Labour relations* have been a positive element in the development of the Danish industry as facilitated by the employment context and the partnership approach to labour relations. Concern with pay and jobs issues are less of a concern compared to health, safety and lifestyle issues. As a result of the positive labour relations, change and restructuring are easier to achieve and there has not been resistance by the workforce to concentration in the industry.

Turning to *financial relations*, while the industry has not shifted to investor-led accumulation, it has become integrated into the global financial network. This is due to significant export and internationalisation links of the industry. Careful management of currency issues is regarded as an important part of the success of MD Foods.

Similar to Ireland, the EU support system for dairy products has superseded national *state intervention* in the Danish industry. Paradoxically, this has increased Danish government interest in the dairy sector as it must now represent the industry at EU level. Representation at policy levels for the Danish industry are clear with the Danish Dairy Board the clear representative body for the industry. However, the dominance of MD Foods of the industry has reduced the influence of the Danish Dairy Board.

**Fig. 9.6 The Changing MSR of the Danish Industry**



Source: author

Similar to Ireland, a significant feature of the changing MSR has been the increasing *global integration* of the Danish dairy processing industry, already referred to in financial relations and market and competition above. Economies of scale have been an important factor in driving the internationalisation and integrating the industry into the global regime. Some problems have arisen as the process of achieving economies of scale internationally, clash with the needs and ideals of producer-led accumulation. The concentration of capital domestically has also been an important factor in keeping foreign capital out of the industry.

Turning to *hegemony*, the Danish industry has remained dominated by producer-led accumulation, despite some dilution in internationalisation activities. However, the desire to achieve economies of scale (accumulation) has been the key driver of change and restructuring. The drive for economies of scale has resulted in a concentration of capital in the Danish industry, this concentration has secured the continuing hegemony of the industry in the Danish retail market. Out of this drive for economies of scale, MD Foods have emerged as hegemonic replacing the previous coalition of private dairies.

Similar to Chapter 8 for the Irish industry, the analysis of key actor interview material and relevant secondary data has illustrated the changing form and outcome of the MSR for the Danish dairy processing industry. It has significantly added to the initial analysis of the MSR based on secondary data in Chapter 7. The analysis revealed the dominant position of the dairy industry, despite significant retail concentration and the focus on close relationships with key retailers in Europe. The positive nature of labour relations in the Danish dairy industry emerged, as did the positive employment context and the constructive approach to change in the industry.

The development of global financial links through exports and internationalisation was identified as part of the global integration of the industry. Economies of scale emerged as a driver of internationalisation for the Danish industry. However, the analysis also revealed the dilemma for a producer-led organisation make long-term investments and incurring losses in another country. The declining role of representative organisations,

in this case the Danish Dairy Board in a situation where concentration of capital is almost complete was also revealed. The significance of understanding changes in hegemony was also important for the Danish MSR. The importance of remaining tied to producer-led accumulation, facilitating domestic concentration of capital and internationalisation was revealed. Similarly to Ireland, hegemony shifted toward globally orientated organisations.

## **Chapter 10**

### **Comparing the Mode of Social Regulation of the Irish and Danish Dairy Processing Industries**

#### **10.1 Introduction**

Having examined the development of, and identified the MSR for, the respective national dairy processing industries of Ireland and Denmark, in this chapter, the two MSRs are compared. The objective is to identify processes of similarity and difference in the MSRs and to reveal those aspects of the MSR that might account for differences in the restructuring trajectories of the two industries. Links will also be made between particular national MSR characteristics and restructuring features of the respective industries.

Initially, the MSRs of the Irish and Danish dairy processing industries are compared. The five elements of the MSR adapted from Marden (1992), and used to identify the MSRs in chapters 8 and 9, form the basis on which the respective MSRs are compared and discussed. The different types and combinations of accumulation systems that have evolved and that have emerged as a significant part of the hegemony of the MSRs and their outcomes are also examined. Then, drawing from discussion and analysis in Chapters 6 and 7, contrasting features of the development and restructuring of the national dairy processing industries are summarised. The main theme to emerge from this chapter is that there are significant contrasts in the MSRs and in the development of the respective industries. Similar global and supranational influences affect both industries but, because they have different MSRs, this chapter shows how the developmental outcomes are different.

## 10.2 The Mode of Social Regulation Compared<sup>39</sup>

In this section, and taking a regulationist approach, contrasts between the development trajectories of dairy processing in the two countries are sought in the MSR elements for the respective industries. The five elements outlined by Marden (1992) (i.e. market and competition, financial relations, employee relations, public policy and adherence to global regime) in addition to the hegemony, form the basis on which the MSR elements are compared. In addition, contrasts between the outcomes of the MSR elements are summarised. It is difficult however, to separate out those processes associated with each element, and the subsequent discussion reflects the inter-connected nature of the MSR elements. For example, in discussing competition in the market and adherence to the global regime, there is a great deal of overlap and commonality between the two issues.

### 10.2.1 *Market and Competition*

The market as an influence on the MSR is considered first in a domestic context and second in an international context. In a domestic context, retailers are a key influence for dairy processors in Ireland and Denmark. While there has been significant concentration of capital in food retailing in both countries, the outcome has been different (see Table 10.1). The Danish industry has remained strong and has been able to resist the introduction of own-label brands and maintain high margins on domestic sales. Co-operation between the major dairy companies supplying the domestic market has strengthened the industry's position. Also, consumer preference for Danish dairy products has deflected the importation of cheaper imported dairy products. On the other hand, companies in the Irish industry feel greater pressure from retailers and seek to counter retailer power by broadening their range of products and strengthening their brand image. Local consumer loyalties are also important in pressurising the retailers to stock local dairy products. These strategies and local influences counter the retailer's control of access to the retail market and the make the option of excluding local dairy companies as suppliers less attractive.

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<sup>39</sup> In Tables 10.1 to 10.8, italics are used to indicate the contrasts between the Irish and Danish industries.

**Table 10.1 Changing Influence of the Market on the Irish and Danish Dairy Industries**

Levels of Regulation	Irish Industry	Danish Industry
Global	Supranational domination of trading giving way to liberalisation through GATT/WTO. Commodity trade evolving to closer supplier-customer links	Supranational domination of trading giving way to liberalisation through GATT/WTO. Commodity trade evolving to closer supplier-customer links
Supranational (EU)	Protected/ subsidisation of markets reduced from late 1980s Disposal measures more prominent	Protected/ subsidisation of markets reduced from late 1980s Disposal measures more prominent
National	<i>Increasing power of retailers through concentration, rationalisation of suppliers and use of own labels.</i> <i>Shift from reliance on EU market support to customer needs</i>	<i>Increasing power of retailers resisted. Industry remains dominant on domestic market.</i> <i>Shift reliance on market support to focus on internal EU market</i>
Local	<i>Irish Dairy Board dominant Irish presence in international markets gives way to direct market links by several large Irish dairy companies</i> <i>Local company/brand loyalty remains important</i>	<i>MD Foods dominant in local-global links</i> <i>Customer loyalty to Danish dairy products remains important in resisting importation of dairy products</i>

Turning to international markets and global and supranational regulation, both industries seek to secure international markets by developing close strategic long-term relationships with their major customers. Senior executives from an Irish and a Danish dairy company stress this common point:

*“Our thought process in the last number of years is geared towards satisfying the customer with whatever he or she might want. If they need R and D, if they need a special blend or mix, if they need any special kind of alteration to products. If we can supply those to them then we do, partnership it is, we work in tandem or in partnership with them. They give us their requirements and we try and satisfy that. A lot*

*of our R and D are geared towards manufacturing products that they require". (IRL106)*

*"PE: So what you mean is that you have closer relations with those customers?"*

*"Yes. And that means relating to them on different levels. You have sales, you have quality, you have transport, logistics and so on, so you have on many layers finance, electronic transfer of information and so on, many layers you have the entrance to the customer. And sometimes they have their own ideas how we should make our components and how we should label the cartons, what is the information you have to put on. What is the printing equipment, 20 years ago we say we have one label and today we also have a dialogue about a lot of practical things which influence quite a lot". (DK105)*

Secondly, for the Irish industry, there has been some shift from CAP supported commodity production to supplying food ingredients specific to customer needs. This has necessitated closer supplier-customer links, resulting in greater direct local dairy plant to international customer links. Changing global regulation had potentially severe negative implications for the Danish industry. However, a shift from extra-EU to inter-EU cheese markets successfully avoided these potential implications.

Thirdly, the changing domestic market environment has had different impacts depending on the particular context in each of the industries. The relative power of the industry and its ability to resist or respond to changes vis-à-vis its customers is important in determining the outcome. In international markets, the Danish industry has made more dramatic adjustments to changing global regulation while for both industries closer links to customers have been necessary to respond to customers' needs.

Nevertheless, it is clear from Table 10.1 that national differences in the MSR for the market can be traced to national and local regulation, rather than global and supranational regulation.

### 10.2.2 *Labour Relations*

The labour relations context for the Danish and Irish industries (see Table 10.2) provides a contrast that arises out of respective national and local economic, political, social and cultural milieus. In contrast to confrontational, tough labour relations in the Irish industry, a more consensual and positive picture emerges for the Danish industry. While both industries are strongly unionised, change is contested and resisted strongly by the trade unions in the Irish industry, whereas change through partnership is more easily achieved in the Danish industry. This is evident in the contrasting comments of an Irish manager and a Danish trade union official:

*“Being a very traditionalist industry and a very unionised industry, it makes for pretty tough industrial relations and by and large, makes changes very hard to negotiate”. (IRL 100)*

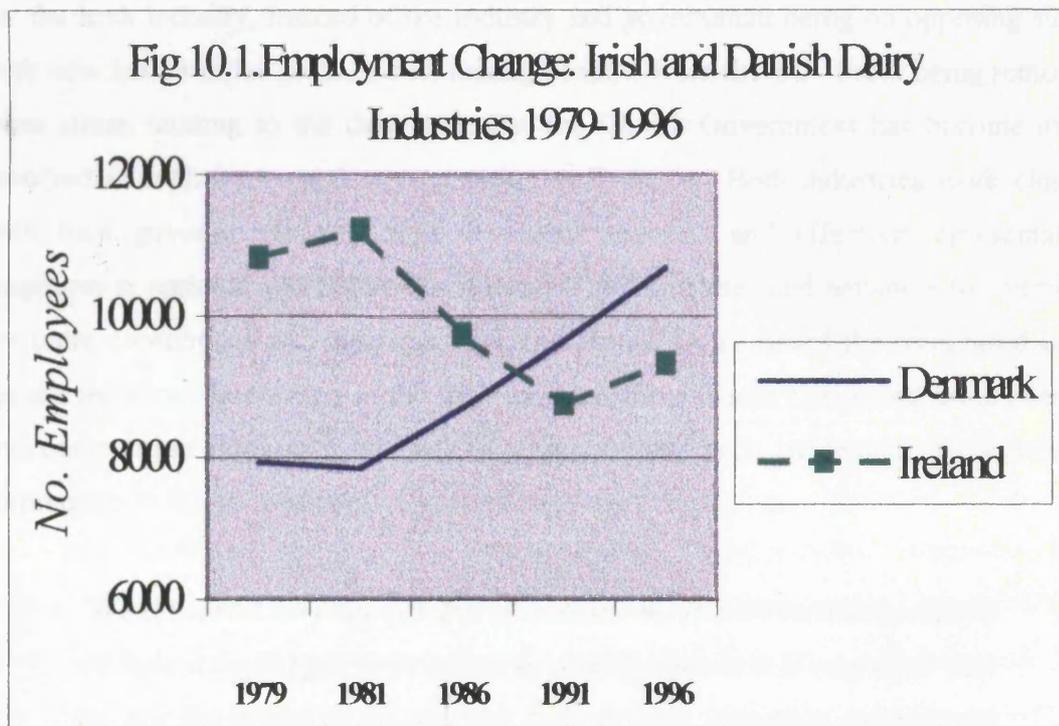
*It would give - they had to change the production, the plants. They do it quickly and that is one of the ... in Denmark. For the Danish dairy industry. They had to .. they can move or change their production very quickly. And you know when feta (markets) break down, they make more special cheese, mostly for Germany, and baby food and condensed milk”. (DK202)*

However, local regulation can significantly influence local processes and outcomes. Key issues for the Irish industry revolve around restructuring and rationalisation, while, in contrast, a more positive employment scenario results in greater concern for health and lifestyle issues in the Danish industry.

**Table 10.2 Changing Influence of Labour Relations on the Irish and Danish Dairy Industries**

Levels of Regulation	Irish Industry	Danish Industry
National	<i>Industry employment growth and then decline due to mergers and rationalisation. In context of national agreements variable local employee relations</i>	<i>Industry restructuring but net employment growth. Partnership approach to employee relations endures.</i>
Local	<i>Exclusive focus of local plants as sites of accumulation replaced by focus on local or global sites.  Local framework influential in employee relations.</i>	<i>Exclusive focus of local plants as sites of accumulation replaced by local plants as part of corporate entity  Workplace formerly identified with community becomes more detached.</i>

In contrast to the Irish industry, the Danish industry has experienced continuous employment growth despite the concentration and rationalisation of the last two decades (see Fig. 10.1).



Source: CSO, Personal Communication

For both industries, restructuring into larger processing units, many of which are part of large international companies, has broken the close connections the industries have had with local communities.

Labour relations, primarily set within each national context, differ between the two countries. The particular culture of industrial relations result in change being much more difficult to achieve in the Irish industry compared to the Danish industry. Linked to this are the different employment experiences in both industries: the Irish experience of declining employment has made labour relations more difficult. In contrast, increasing employment in Denmark has helped to keep labour relations more positive. However, local regulation and local influences can significantly influence the labour relations.

### *10.2.3 State Intervention*

The policy framework in each country is different and influences the MSR (see Table 10.3). Entry into the EU has changed the nature of the policy context for both industries: for the Irish industry, instead of the industry and government being on opposing sides, both now have similar goals in maximising benefits from the EU. From being removed from issues relating to the dairy industry, the Danish Government has become more involved in such issues and representation at Brussels. Both industries work closely with their governments and have developed separate and effective representative structures at national and EU level. However, the structures and networks in Denmark are more coordinated and clear-cut, with the Danish Dairy Board the recognised body for the industry. In contrast in the Irish industry, there is less clarity and some overlap and competition between a number of organisations, as is evident in the following comments:

*“We (Danish Dairy Board) are. For sure. We are. In certain questions we have a legal right to be asked, in other questions it is very clear that we are the organisation and the body to take initiatives towards the Minister to change things and to make him take part in discussions at*

*the international level when we talk about the dairy policy. That's very clear". (DK401)*

*"And there's a number of organisations representing the dairy industry, the ICOS, which is the co-operative organisation and would probably see itself somewhat between a processor organisation and a farming organisation, therein lies a bit of a problem, the Irish dairy industries association, under the auspices of IBEC, again they probably would suffer a little bit of that as well, even though they're quite clearly a processors organisation, that can sometimes mean that it is easier for us to take the lead and maybe to gain support along the line". (IRL501)*

**Table 10.3 Changing Influence of Public Policy on the Irish and Danish Dairy Industries**

Levels of Regulation	Irish Industry	Danish Industry
Global	Supranational domination of trading giving way to liberalisation through GATT/WTO.	Supranational domination of trading giving way to liberalisation through GATT/WTO.
Supranational (EU)	Supply control introduced and maintained.  <i>Industry develops own representation to Brussels-the key decision centre.</i>	Supply control introduced and maintained.  <i>Industry increasing its focus on Brussels-the key decision centre.</i>
National	<i>Competitive policy network with some overlap between organisations.</i>	<i>Clear, coordinated policy network.</i>

Thus, producer representation tends to dominate broader policy issues in the Irish industry, with the industry focusing on issues specific to the industry. Concentration of capital in the Danish industry has resulted in a shift in power away from the Danish Dairy Board to the dominant company- MD Foods. Both industries have benefited from the EU dairy market support systems, which, has in turn influenced the subsequent development of the industry.

In other respects regulation at global and supranational levels are similar for both industries; however, their impact can vary because of the particular characteristics of the industry. This is evident above in the more severe impact of the GATT agreement on the Danish and the resultant switch to intra-EU markets. Policy at the national level has been superseded by EU influence and the industry in both countries concentrates its efforts on influence at this level.

#### 10.2.4 *Financial Relations*

As both industries have internationalised, they have become similarly integrated into the global financial network (see Table 10.4). This integration is apparent from the comments of an Irish industry executive and a Danish financial executive:

*From Ireland, certainly, most of the (dairy) co-operatives would be borrowing outside of Ireland as well, depends where you have different types of business. If you have some of them based overseas, you will more likely borrow overseas. Certainly, the Irish dairy industry would now be global in terms of its sources of finance, in terms of its borrowing. Then there is the private placements some have used private placements in the US and in the UK". (IRL106)*

*"They are very active, especially one of the dairy industries, MD Foods is very active abroad, with export. Export is very influenced by currency movements and interest movements and therefore of course they are also interested in hedging possibility, trying to hedge their position, short, long term hedging possibilities, and also interested in, they have a very big cashflow of course, so consequently they are also very interested in the best way to optimise the cashflow, the interest on their cashflow. So they are very active in the money market". (DK300)*

For the Irish industry, global financial integration has been accelerated by the shift to investor-led accumulation and subsequent international expansion, especially into the

US. Integration of both sets of industries into the global financial network has given them access to flexible and competitive sources of finance, in return for maintaining high levels of growth and profitability. Companies such as Kerry have been brought to the attention of financial institutions seeking buyers for foreign food companies. An important aspect of the success of MD Foods has been its management of foreign exchange dealings.

**Table 10.4 Changing Influence of Financial Relations for the Irish and Danish Dairy Industries**

Levels of Regulation	Irish Industry	Danish Industry
Global	From late 1980s, integration into global financial network	From late 1980s, integration into global financial network

The integration of companies of both industries into the global financial network has left the domestic financial institutions struggling to compete for the business of these formerly local companies. Even so, in the Irish industry particularly, alongside the companies, which operate in the global financial network, are dairy companies that continue to operate conservatively within the domestic financial system. Both sets of dairy processing industries have become integrated into the global financial network through the internationalisation of their businesses, with such investor-led accumulation fostering greater integration. This arises from the greater opportunities for accumulation for the financial sector from investor-led accumulation. In contrast, producer-led accumulation presents less opportunity for accumulation for the financial sector. Producer-led accumulation does not prevent global integration; the producer-led Danish industry has for instance, become integrated, as discussed earlier but it does not allow the same degree of integration in the global financial network as is the case with investor-led accumulation.

### 10.2.5 Global Links

The changing nature of the industries' global links (Table 10.5), and contrasting drivers, features and outcomes (Table 10.6), are examined in the following discussion. Since the late 1980s, both national dairy processing industries have internationalised and become increasingly integrated into the global dairy market. Limitations of small domestic markets, the need for growth, the drive for economies of scale (and market power), have driven this internationalisation. For the Danish industry, international concentration in retailing has also been an important factor, as the industry seeks to maintain close business relationships with the major European multiples and gain synergies through channeling their own products through the distribution channels of acquired companies. As a result of the internationalisation, domestic sites of accumulation have lost their former preeminence: foreign sites have become more important while domestic sites have become subsumed into larger corporate entities.

**Table 10.5 Changing Nature of Global Links for the Irish and Danish Dairy Industries**

Levels of Regulation	Irish Industry	Danish Industry
Global	Commodity trade evolving to closer supplier-customer links.	Commodity trade evolving to closer supplier-customer links.
National	<i>Change from focus on domestic concentration of capital to international accumulation opportunities.</i>	<i>Domestic concentration of capital almost complete with some focus on international accumulation opportunities</i>
Local	Exclusive focus of local plants as sites of accumulation replaced by focus on local or global sites.  <i>Community basis-moderating globalising influence.</i>	Exclusive focus of local plants as sites of accumulation replaced by local plants <i>as part of corporate entity.</i>

Full integration of the Irish industry into the global regime is inhibited by the EU market support system and role of the Irish Dairy Board. As a result, the Irish industry has not reached globally competitive levels of scale, despite the internationalisation of

some of the Irish companies that have occurred. As MD Foods dominates the Danish industry and international activities for the Danish industry, it has, in effect, integrated the industry into the global regime. However, internationalisation of the Danish industry has led to problems on the UK market. This highlights the dilemma of a producer owned company internationalising and incurring a costly long-term strategy to achieve scale and market presence abroad. While foreign capital had a greater presence in Ireland up to the 1980s, recent restructuring has seen such capital decline.

**Table 10.6 Contrasting Dimensions of Global Adhesion for the Irish and Danish Industries**

	Irish Industry	Danish Industry
Drivers	<i>Small domestic market. Need for growth. Limited opportunities for growth/ concentration domestically.</i>	<i>Retail concentration and internationalisation. Need for economies of scale</i>
Features	<i>Acquisition strategy. Focus on UK and US. Internationalisation by several companies.</i>	<i>Multiple internationalisation strategies. Focus on Middle East and UK. Internationalisation principally by one company.</i>
Outcome	<i>Domestic sites decline in importance.  Integrated into global financial network. Partial integration of industry into global market regime.</i>	<i>Conflict goals internationalisation versus goals producer led accumulation.  Integrated into global financial network. Almost complete integration of industry into global market regime.</i>

Increasing global integration is one of the key features of the changing MSR for both industries. It is closely linked to changes in the market, finance and the desire to seek economies of scale and market power. In the Irish industry, it arises out of a shift from producer to investor-led accumulation, whereas, in the Danish industry, it emerges from the drive for economies of scale.

### 10.2.6 *Changing Hegemony*

During the 1980s and 1990s, there has been a change in the composition of hegemony in the MSR as regards both national industries (see Fig. 10.2 and Table 10.7). The hegemony of an older regime was followed by an unstable transitory period. The older regime, in both cases, comprised a group of companies and organisations that had developed in a period of more significant institutional regulation stretching back over several decades. The period of transition, in both cases, was marked by conflict and instability as different organisations and companies competed for and contested dominance; the outcome of the transitory phase is uncertain and continues to be contested.

**Fig. 10.2 Regime Characteristics**

Old Regime	Transition Phase	New Regime
Hegemony based on coalition of companies, groups	Instability, conflict, outcome uncertain	Hegemony based on new, dynamic internationally orientated companies

However, the new MSRs in both industries are dominated by relatively new, dynamic, internationally orientated companies. These companies have prospered with increasing global adhesion, coupled with the need to grow and achieve scale. However, there are differences in outcomes. Contrasts emerge in domestic concentration, accumulation type and market links. These contrasting outcomes are further developed in sections 10.3 and 10.4.

**Table 10.7 Changing Outcome of the MSR and Hegemony for the Irish and Danish Dairy Industries**

Level of Regulation	Irish Industry	Danish Industry
National	<p><i>Change from focus on domestic concentration of capital to international accumulation opportunities.</i></p> <p><i>Intra-industry conflict in “milk wars” declines as focus shifts internationally.</i></p>	<p><i>Domestic concentration of capital almost complete with some focus on international accumulation opportunities.</i></p> <p><i>Intra-industry conflict declines, as MD emerges hegemonic.</i></p>
Local	<p>Ubiquitousness of producer-led accumulation replaced by producer or investor-led accumulation.</p> <p>Irish Dairy Board dominant Irish presence in international markets gives way to direct market links by several large Irish dairy companies.</p>	<p>Producer-led accumulation remains dominant at local and national level.</p>

#### 10.2.6.1 *Producer and Investor-led Accumulation*

A crucial part of the hegemony of the MSR to emerge in this study is the type of accumulation that exists. The difference in accumulation type primarily arises from the different types and mixes of ownership structures that exist in the Irish and Danish dairy processing industry. In the capitalist system, ownership of the means of production determines the destination of the benefits of accumulation. It is important to differentiate accumulation types because they are a significant part of the hegemony of the MSR. However, elements of the MSR are closely interrelated and accumulation type is also closely linked to financial relations. In producer-led accumulation, returns are maximised to the producer, in the case of the dairy industry through milk-price. Whereas, in investor-led accumulation, returns are maximised to the investor through share-price and dividends. There has been some modification to the type of accumulation in both industries, but it has been more significant in the Irish industry (see Table 10.8).

Since the mid-1980s, there has been a shift from producer to investor-led accumulation by a significant part of the Irish industry. As discussed earlier, this in turn has driven growth and internationalisation of the industry. However, a significant part of the Irish industry has remained in the more traditional producer-led accumulation segment of the industry. It should also be noted that, in the Irish companies that have switched to investor-led accumulation, a significant part of the ownership remains in producer hands. Therefore, the switch in accumulation type is partial and incomplete.

**Table 10.8 Accumulation Type Changes for the Irish and Danish Dairy Industries**

Level	Irish Industry	Danish Industry
National	<i>Significant segment of the industry shifts from producer to investor-led accumulation.</i>	<i>Shift from producer to investor-led accumulation only on international activities.</i>
Local	<i>Ubiquitousness of producer-led accumulation replaced by mixture of producer and investor-led accumulation.</i>	<i>Producer-led accumulation remains dominant at local level.</i>

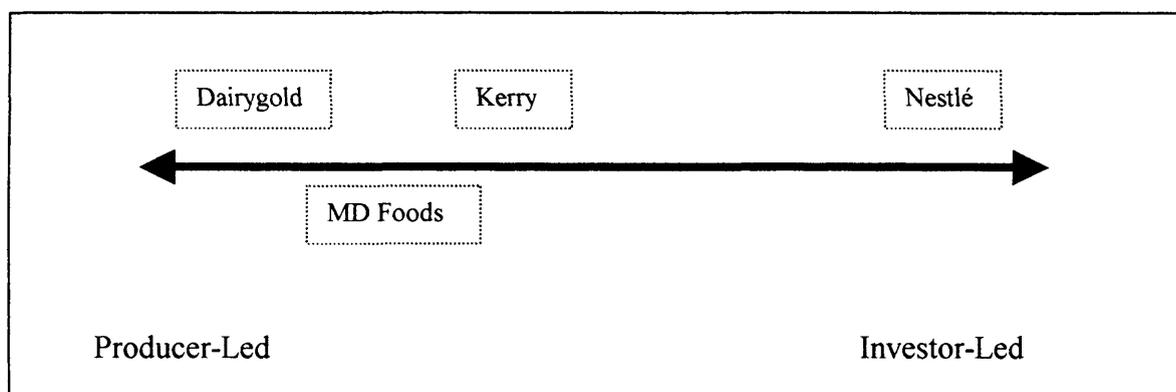
In contrast, the Danish industry remains almost completely producer-led. The exceptions are a small number of companies that are privately owned, and the international<sup>40</sup> arm of MD Foods set up in 1989, of which 49% is owned by institutional investors. There has, therefore, been a small amount of dilution of producer-led accumulation, but not to the same extent as in the Irish industry. Ownership and control of the Danish industry remains with domestic producers who have benefited from the highest milk prices within the EU.

However, a clear separation of producer and investor-led accumulation is not possible. Both types co-exist (in some cases within the same company), operate in the same economic environment and influence each other. For example, the milk-price paid to producers by producer-led accumulation companies must be matched by investor led-accumulation companies or vice-versa. Similarly, both types of accumulation compete in similar markets and investments in product development, research and marketing will need to be similar to maintain market share. Given that the shift to investor-led

<sup>40</sup> See more details in Chapter 7.5.

accumulation can be partial, and that both types of accumulation operate in similar markets and influence each other, accumulation types in the dairy industry can be best considered as part of a continuum, that is between strongly producer-led and strongly investor-led (see Fig 10.3). For example, Dairygold, a completely producer-owned Irish dairy co-operative with little international activities, is at one end of the continuum; on the other hand, a fully investor owned multi-national organisation, such as Nestlé, is at the investor-led end of the spectrum. At points in-between are organisations such as Kerry and MD Foods in Ireland and Denmark respectively.

**Fig. 10.3 The Continuum of Accumulation Types**



Source: Author

The accumulation type is important: it is an important part of hegemony of the MSR and in turn the degree of integration into the global financial system. It can also influence the ability to concentrate capital. For instance, producer-led accumulation organisations are more willing to merge or join with organisation of the same type.

#### **10.4 Industry Development in the Two National Contexts**

In this section, a comparison of the development of both national industries is summarised, based the empirical reviews in chapters 6 and 7. Rapid industrialisation in a strongly producer-led accumulation context is evident in the Danish industry. By comparison, the Irish industry was slower to industrialise and only state intervention ensured the survival and dominance of producer-led accumulation. Strong trading links with the UK were important for both industries; however, the Irish War of

Independence from the UK, and the later economic war<sup>41</sup>, disrupted the Irish industry and its links with the UK. State domination and stagnation in the Irish industry presented opportunities for foreign capital investment in the 1960s and 1970s. In contrast, Denmark's economic relations with the UK have been more stable: the country has enjoyed relatively long-term political and economic independence and stability (apart from being occupied during World War II). While the Danish industry was more self-reliant, the state did intervene to support producers and the industry in times of difficulty; however, there was little potential for foreign capital to gain a significant foothold.

Integration into the EU regulatory system for the Danish dairy industry presented opportunities domestically, through the abolition of previous monopolies, and internationally through subsidised exports outside the EU. The former was exploited by an expanding MD Foods, the latter through the Danish 'feta adventure' in the Middle East. The Irish industry also grew, became concentrated (a dominant group of the 'big 6' co-operatives emerged), and benefited from integration in the EU. However, the introduction of quotas put an end to expansion through increasing output. As the 1980s progressed, the unwillingness of the Irish industry to concentrate capital domestically, combined with the need for funds for foreign acquisitions, facilitated a change for a significant part of the Irish industry to investor led-accumulation. In turn, this increased pressure on profit and growth produced driving a period of rapid internationalisation of the industry. In addition, foreign direct investment was reversed as several of the large Irish processors acquired Irish based foreign-owned plants. As global regulation through GATT/WTO came to present a formidable challenge in the early 1990s, a significant reorientation of markets and products for the Danish industry was necessitated. With the growth of MD Foods, the Company has also internationalised its activities, beyond existing dimensions of exporting, to joint ventures, acquisitions in target markets and strategic co-operations.

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<sup>41</sup> The economic war refers to a period of difficult relations between the Irish and British governments in the 1930s, when trade between the two countries was restricted.

The Irish industry's inability to act collectively has resulted in the state playing a more significant role in regulating the industry. The absence of collective action can be traced to the top-down nature of the development of the industry and the particular cultural and political context which had focused on conflict rather than co-operation. This inability for collective action also helps to explain the weak attachment to producer-led accumulation and its subsequent dilution through the change in status of many of the co-operatives in the late 1980s. In contrast, producer-led accumulation is more deeply embedded in the Danish industry, so also is the ability to act collectively in the wider interest. The presence of collective action can be traced to the emergence of the industry out of a well educated, confident farmer class with a strong emphasis on local initiative. The combination of producer-led accumulation and collective action has facilitated the concentration of capital in the industry and has resulted in less direct intervention by the state. In turn, the concentration of capital has enabled the largest company to internationalise and have ambitions to be a significant European dairy company. This has been achieved while largely remaining within a producer-led accumulation framework.

The argument, therefore, is that the Irish and Danish industries have evolved and developed out of two contrasting and particular national contexts; for example: (1) in attachment to producer-led accumulation, (2) in the role of the state, and (3) in the ability to act collectively. Producer-led accumulation is more deeply embedded in the Danish than in the Irish industry; the weaker attachment to producer-led accumulation in the Irish industry facilitated a shift to investor-led accumulation, which in turn resulted in integration into the global dairy market. The state has played a much less prominent role in the Danish industry hence the industry is more independent than the Irish industry, where the state has intervened significantly to influence its development. The Danish industry has displayed a greater ability to organise and act collectively enabling strategic changes to be made at different times. On the other hand, the Irish industry has not displayed the same ability resulting in greater rivalry and a more fractured industry.

## 10.5 Conclusion

Despite the same influences operating at global and supranational levels, significant contrasts have emerged in the national MSRs and their outcomes for the Irish and Danish dairy processing industries. In reviewing the industry development, contrasts have emerged in the attachment to producer-led accumulation, in the role of the state and in the ability to act collectively. The market and inter-firm competition have created different impacts depending on the particular context in each of the industries. The relative power of the industry, and its ability to resist or respond to domestic market changes, is an important determining factor on the impacts. The Danish industry has made more dramatic adjustments to changing global market regulation, while for both industries closer links to customers domestically and internationally have become very important.

Primarily set in a national context, labour relations differ between the two industries. Bringing about change is more difficult in the Irish MSR, where rationalisation and declining employment have been dominant features in contrast to the Danish MSR. However, local regulation can result in great variation in labour relations at company or plant level.

While regulation at global and supranational levels is similar for both industries, the impact can vary because of the particular characteristics of the industry. The more severe impact of the GATT agreement on the Danish industry, and the resulting response of the industry highlight these differing outcomes. The dominance of supranational regulation of the dairy industry through CAP has shifted the focus to EU level where both industries concentrate their efforts.

Both industries have become integrated into the global financial network through internationalisation or through a shift to investor-led accumulation. Increasing global integration is one of the key features of the changing MSR for both industries. It is closely linked to changes in the market, finance and the desire to seek economies of scale and market power. In the Irish industry, it arises out of a shift from producer to

investor-led accumulation, whereas, in the Danish industry, it emerges from the drive for economies of scale.

There are similarities in the changing hegemony of the industries' MSR in both countries. Hegemony has shifted from a group of companies or organisations, through a transitional, unstable period, to the emergence of relatively new, dynamic and internationally orientated organisations as hegemonic. The type of accumulation has been an important part on the MSR. It influences the orientation of the individual organisation and in turn the industry. However, there are also variations within the type of accumulation between the industries. This is evident in the differing outcomes for producer-led accumulation in the two industries.

## **Chapter 11**

### **Conclusion**

#### **11.1 Introduction**

The theoretical concept of the MSR has been examined empirically in this study; an attempt has been made to uncover the form of the national MSR, in an increasingly globalised context. This chapter discusses the key conclusions, having analysed and compared the MSRs for Ireland and Denmark. These include: the contingency of the MSR on national and local regulation, the contingency of the MSR on past MSRs and the influence of accumulation type on the MSR. In addition, conclusions on hegemony and global integration, and the differential impact of real regulation, are discussed. These aspects give some insight into the features of a new emerging MSR. Following this discussion of the key findings, a retrospective consideration is made of the suitability of the theoretical framework and the methodology used in this study. Important recent developments in the Danish and Irish industries since the completion of the fieldwork, are then reviewed; and, finally, areas for future research are highlighted.

For the purposes of this study, the MSR has been analysed and discussed based on Marden's (1992) five elements and hegemony. However, it is important to emphasise the interrelated nature of the elements of the MSR; the elements are not independent and are closely linked with one another. The market and financial relations are very closely tied up with global links. State intervention at the supranational level is bound up to the market and competition. Hegemony is an outcome of the responses of companies and organisations to the changing nature of the elements of the MSR.

#### **11.2 Mode of Social Regulation Contingent on National and Local Regulation**

This research has explored how the MSRs for Ireland and Denmark are contingent on the particular national and local regulations within which they are subsumed. The comparative analysis carried out in this research has found that the key differentiating

aspects of the MSR are: labour relations, national capital in the domestic market, and the public policy framework. The MSR for the Danish industry is strongly influenced by its dominance in the domestic market, despite retail concentration, the consensual and positive employee relations framework, the significant role of the Danish Dairy Board at policy level and the concentrated industry structure. In the Irish industry by comparison, confrontational employee relations, the particular role of the Irish Dairy Board, the greater focus on internationalisation, producer influence at national policy level, and the inability to concentrate capital domestically, comprise the processes that have been active in forming the MSR for the Irish industry.

The comparative mode of analysis also reveals how local regulation significantly influences the MSR. Despite the influence of global, supranational or national regulation, local regulation can have a significant influence. In the Irish industry, local loyalty to dairy products is important in countering the influence of retail multiples; confrontational and difficult labour relations are significantly modified by local regulation; producer views influence the type of accumulation that prevails in their dairy company. Similarly, for the Danish industry, loyalty to Danish dairy products counters the threat to import cheaper products. On the other hand, there are indications that in the Danish industry, concentration and rationalisation has reduced the influence of local regulation in labour relations and in community links with the industry.

### **11.3 Mode of Social Regulation Contingent on Accumulation Type**

Accumulation type has emerged as an important part of the hegemony element of the form of the MSR, but also closely linked to financial relations. The influence of accumulation type on the MSR is discussed in this section and hegemony as an outcome of the MSR is discussed in 11.5.

This comparative research has shown how the MSR is contingent on the strength of attachment to the type of accumulation, which prevails. In particular, the type of accumulation influences the level of integration in the global financial network. For instance, greater integration occurs in investor-led accumulation than in producer-led

accumulation: the former seeks greater accumulation opportunities; the latter is more focused on maximising returns to producers, therefore accumulation through profits is less of a concern. As a result of the integration in the global financial network and the drive to grow and internationalise, greater adhesion to the global market regime follows integration into the global financial network.

The accumulation type also influences the goals of the dairy processing companies and their willingness to speculate to accumulate internationally. However, again the national regulations influence the particular formation of type of accumulation. For example, as well as national variations between accumulation types, there are national variations within a single accumulation type. An accumulation type does not guarantee a certain outcome; it also depends on other aspects and elements of the MSR. For example, in the Irish case, a regionally focused industry using a marketing board for global links is evident, whereas a globally and customer orientated structure is evident in the Danish case.

The attachment or link to the accumulation type is strongly influenced by the particular national framework from which the industry has emerged. Cultural, political, social and economic factors contribute to the development of an unique national framework in each case that in turn shapes the accumulation type and MSR. The weak attachment to producer-led accumulation in the Irish industry, for instance, arises out of the country's more recent emergence from a colonial past, top-down initiated producer-led accumulation, and the greater dependence on the state and later the EU. The weaker attachment facilitated a shift to investor-led accumulation which, when combined with an inability to act collectively, led to increasing internationalisation and integration in the global dairy regime.

On the other hand, the more durable attachment to producer-led accumulation in Denmark emerged from a stronger independent, well-educated farmer class, a greater recognition of the individuals' contribution to the community, bottom-up driven development of the industry, and a greater ability to act collectively. The attachment has remained strong as the industry has repeatedly adapted to changing circumstances

and retained its producer-led orientation. As a consequence, almost complete domestic concentration of capital has been possible.

Accumulation type is of greater concern in food-related industries than in other industries. This is due to the traditionally strong role played by producers in setting and influencing the accumulation context in these areas. However, accumulation type is also important in the financial sector, where mutual or co-operative ownership is important.

#### **11.4 The Influence of Previous Modes of Social Regulation**

MSRs change and evolve over time. In contrast to much regulation theory, this research has shown how new MSRs do not represent a clean break with past MSRs; rather they build upon past MSRs and are strongly influenced by them. This is evident in both case studies where elements of previous MSRs significantly influence the current MSR, albeit in different ways. For example, from an early stage, the Danish industry was more independent and in receipt of little state intervention compared with Ireland. At different stages, the industry has made key transitions and adjusted and adapted to changing regulatory environments. These features continue to influence the current MSR and; in this way MSRs build on each other.

The Irish industry, in contrast experienced a more difficult formation period, with greater state intervention followed by a high level of dependence on CAP. The shift to investor led-accumulation, allied to growth and internationalisation, ushered in a new MSR for a section of the industry. While, in the Irish case, the MSRs did build on each other, the recent MSR is a more significant break with past MSRs than in the case of the Danish industry. Therefore, in one example, the new MSR is more distinct from the previous one (Irish industry), while in the other example the new MSR is more strongly based on the previous one (Danish industry).

Thus, elements of old and new MSRs can co-exist. This can be seen when a part of the industry makes a transition to a new MSR, while another part continues under the

existing MSR. For example, in the Irish industry, a different MSR exists for the investor-led, internationally orientated section of the industry, compared with the producer-led domestically focused section, with links to the Irish Dairy Board.

### **11.5 Global Integration and Hegemonic Change**

Integration into the global market regime is a key factor in hegemony within the current MSR. Organisations that integrate and accumulate globally are likely to be dominant also in their national context. This is apparent in both the Irish and Danish industries. This is the case because a certain level of accumulation and concentration of capital is required domestically to embark on a more global accumulation strategy. Therefore, in a small country, this level of concentration can be sufficient to dominate domestically. A contributing factor to hegemonic status can also be the innovative strategies adopted that put an organisation in a dominant role. The hegemonic status derives from innovative strategies pursued, which through the MSR influences the strategies and responses of other organisations.

Whereas in previous MSRs, a coalition or group of organisations were hegemonic, an individual organisation is presently more likely to be hegemonic. Organisations such as marketing boards were in key co-ordinating positions in previous MSRs, often supported by national regulation. However, with concentration of capital domestically, and direct market links by individual companies, their role and influence has declined. In the increasingly globalised regime, an organisation that can integrate and accumulate globally is more likely to be hegemonic nationally.

### **11.6 The Differential Impacts of Real Regulation**

Lastly, this research confirms that real regulation has differential impacts whether measured at global, supranational or national levels. The variation in impact arises from the detail in the regulation or the particular national context. For example, global regulation through GATT/WTO had widely varying impacts on the Irish and Danish industries. Reduced supports for cheese exports outside of the EU necessitated a major

reorientation to internal EU markets by the Danish industry. On the other hand, GATT/WTO had little impact on the Irish industry.

In relation to supranational regulation through the CAP, different impacts resulted from the same regulation. While both the Irish and Danish industries were subject to the same regulation, there were different impacts and outcomes. The Irish industry with seasonal low cost production and a relatively peripheral location availed of support for commodities through intervention and disposal measures. This paved the way for specialisation in food ingredients and internationalisation for some companies. In contrast, the Danish industry search for new markets in the Middle East led to a reliance on export refunds for its growing feta cheese markets.

In the case of national regulation, the deregulation of urban-based dairies in Denmark (arising from membership of the EU) in the early 1970s, led to significant change and restructuring in the dairy processing industry and the demise of old hegemony. In Ireland, similar deregulation resulted in the Irish Dairy Board changing from state to co-operative ownership. However, this had little effect on the Irish dairy processing industry.

### **11.7 Suitability of the Regulationist and Mode of Social Regulation Approach**

The results of the research appear to confirm that the regulationist approach, including the MSR, provides an appropriate theoretical framework for this thesis. The approach has enabled the complexities of modern capitalism to be embraced, including how such diverse elements as finance, the market, labour, public policy and global links combine to form the MSR. With this approach, it has been possible to incorporate these elements at global, supranational, national and local levels, with responses and outcomes considered at national and local levels. A significant insight into the behaviour of industry and its structural change has been gained, which has been able to take account of a broad range of influences and responses at several spatial scales. As a result, the true complexity of the 'real world' has become more apparent.

There is evidence of the emergence of a new MSR over the last 20 years, which is likely to have parallels in other industries and other economic activities. Global integration (through the market, financial relations and internationalisation) and ability to accumulate globally are key aspects of this new MSR. State intervention at a national level is less important as supranational and global regulation has grown in importance. However, national and local level regulation is still influential. Hegemony is based less on domestic dominance, though this is still important, but rather on the ability to respond to, and link with other organisations that accumulate internationally.

The link between accumulation and the MSR has proved to be very important leading to a more precise identification of accumulation type. It has been important to differentiate between accumulation types and develop the concepts of investor-led and producer-led accumulation.

However, the MSR remains a difficult concept to use empirically. It is not well defined in the literature and is elusive to identify empirically. The MSR was examined in this study by its sub-division into the five elements identified by Marden (1992), and including the additional issue of hegemony. This enabled the elements of the MSR to be identified and analysed, and important dynamics have been revealed. However, when the MSR is reconstituted from these elements, it is difficult to identify a coherent MSR. Each of the elements of the MSR is broad ranging, and identifying a coherent MSR from a combination of such elements is challenging.

The tendency to focus on 'real regulation' as opposed to the MSR in the literature is evidence of the difficulty in operationalising the MSR concept empirically. While the MSR concept is wide ranging enough to capture changes and impacts at several spatial scales, it suffers the disadvantage of being too broad and inclusive to be captured in its fullest empirical sense.

## 11.8 Evaluation of the Methodology

A comparative approach using primary and secondary data sources to establish the form and outcome of the MSR was used in this study. The data derived from key actor interviews was crucial in enhancing and detailing the understanding of the MSR gained from secondary sources. For example, the interview data highlighted the significant influence of the shift from producer to investor-led accumulation for the Irish industry. This primary source also highlighted the dominance of the Danish industry in the domestic market, despite significant retail concentration. The interview data revealed the changing nature of hegemony, not otherwise apparent – the shift in influence from national organisations to globally orientated dairy companies. The increasing global integration through closer market links and financial links only became fully evident through the key actor interview data.

The comparative approach turned out to be a very beneficial aspect of the study. It enriched the intellectual rigour of the study considerably, by highlighting features of the MSR and regulation that may not otherwise have been revealed in a single nation study. The issues of accumulation type, national contingency, characteristics of hegemony, and the differential impact of real regulation were highlighted by the comparative method. The selection of the two cases contributed to the benefits of the comparative approach. Both were comparable due to their similarities in context (size, development and regulatory influences) and yet diverse enough in experience to provide valuable case studies. Overall, the methodology adopted in this study did reveal the respective MSRs and their change over time in the two industries and their consequences for dairy processing in the two countries.

As discussed in Chapter 4.8, Baxter and Eyles (1997) have set out four criteria for evaluating qualitative research: credibility, transferability, dependability and confirmability. These criteria are used to evaluate the ‘rigour’ of the research in this study. Credibility, defined as the “authentic representation of experience”, was focused on by using triangulation, peer debriefing and member checking. In addition, the primary data source (quotations from the interviews), is in effect, albeit selectively, the

'authentic voice' of the industry. The degree of transferability of the study (which relates to "the degree to which findings fit within contexts outside the study") is not a central issue for this study. The MSR, its form and outcome in the Irish and Danish industry are unique in time and place, and while general conclusions are drawn (see 11.2 to 11.6), no claim can be made that the specific industry findings also fit outside these particular contexts.

Dependability, referring to the "plausibility of accounts" was attended to through mechanically recorded data, peer examination and triangulation. For this study, the use of validating interviews and reviews of interpretations by experts and academics contributed to the dependability of the study. The final criterion, confirmability, refers to the degree to which findings are determined by the respondents and the enquiry rather than the inquirer. Suggested strategies and practices (Baxter and Eyles 1997) include audit trails and journal notebooks. Again, the author argues that the validating strategies used in this study (validating interviews, industry and academic review, and triangulation of data type and respondents) contribute to its confirmability.

## **11.9 Postscript**

Concentration of capital has continued in the Danish dairy industry and has now moved up a scale to the Scandinavian regional level. In the Danish industry, MD Foods merged with the second largest dairy company in Denmark - Klover Maelk - in 1999. As a result of this merger, MD Foods dominates the dairy industry in Denmark, accounting for over 90% of the total milk supply. Furthermore, in April 2000, MD Foods merged with Arla, the largest Swedish dairy company, to form Arla Foods with its headquarters in Aarhus, Denmark. The new organisation now dominates the dairy industry in Scandinavia, becoming the largest dairy group in Europe and the world's second largest dairy group (by milk received) after the Dairy Farmers of America (Arla Foods 2000). The continuing concentration of dairy processing in Scandinavia confirms the stronger attachment to producer-led accumulation.

Concentration of capital continues to be more difficult in the Irish industry and a shift to investor-led accumulation and internationalisation has not guaranteed success. In the Irish industry, Avonmore and Waterford merged in 1997 to form Glanbia, the largest milk processor in Ireland and one of the largest dairy groups in Europe. However, since the merger, Glanbia has experienced trading losses and, in 1999, withdrew from the UK liquid milk market. In an effort to stimulate further concentration and rationalisation of the Irish industry, ICOS, the representative body of co-operatives in Ireland, put forward a proposal for the rationalisation of the Irish dairy industry in April 2000 (ICOS 2000). The proposal advanced three options for rationalisation; these included: incremental development of the present structure, dairy co-operatives to combine at a regional level through mergers or joint ventures, and the establishment of a single and large scale processing business for the Irish industry. To date, there have been no developments in mergers or rationalisations arising from this proposal. The lack of concentration and scale is an increasingly urgent issue for the Irish dairy processing industry.

### **11.10 Further Research**

Based on this thesis, three areas for future research have been identified. First, arising from the different types of accumulation operating within the dairy processing industry, and in many other sectors such as the financial sector, further research could focus on gaining a better understanding of the contestation of accumulation types at company and industry level, and the impact of shifts in accumulation type.

Second, there is an emerging geography in the tendency for global food service companies to expand into new and emerging markets in Asia and South America. Linked to these companies are ingredient supply companies (such as Irish dairy companies), which follow their customers, with links to US and European food supply chains. This was evident from the analysis of the global links of Irish dairy companies in Chapter 8. Research could focus on the changing geography of food companies and the impact of this component of the globalisation of food on the host countries.

Third, the emerging shape of dairy processing industries, and the regulatory structures that govern them, in Eastern Europe is of increasing importance for the EU. Further work could include comparative analysis of MSRs within the EU and the Eastern European countries.





## B. Competition

8. Where is your market?

Location	% of total dairy turnover		
	1976	1986	1996
Local			
National			
UK			
Rest of EU			
Rest of World			

9. What type of competition do you encounter?

Location of competition	Dominant type of competition
Local	
National	
UK	
Rest of EU	
Rest of World	

1. Price, 2. Quality, 3. Supplier rels (JIT ETC), 4. Other

10. Regarding the type of competition mentioned above, what do you think its impact has been on the industry?

11. How do you think the nature of your competition has changed in the last 10 years?

### C. Employee Relations

12. In your own words please, describe employee relations in the dairy industry?

13. Please describe the level of co-operation between employees and management in the dairy industry?

(\*)high/low degrees of co-operation??

14. How has labour/employee relations changed since the 1970's in the dairy industry?

Specifically:

Element of Employee relations	Change
Wage Rates vav national av.	
Full time, part-time	
Gender balance	
Working conditions	
Length of contract	
Unionisation	
Other	

15. What do you think are the contentious issues as regards the Trade Union movement and the dairy industry in the 1990s?

16. Do you think the contentious issues with the workforce in the dairy industry were different in the 1970s and 1980s? If so, how?

17. How do you think issues with the workforce in the dairy industry are resolved in the 1990s?

18. In your opinion, were the contentious employee issues with the workforce in the dairy industry resolved differently in the 1970s and 1980s? If so, How?

19. What specific management techniques been adopted in the employee relations area in the dairy industry?

**If none adopted, skip Question 20.**

20. What have been the consequences of the implementation of these techniques for employee relations in the industry?

**D. Financial Influences**

21. What are the important sources of finance for the dairy industry?

Sources	1980s	1990s
Members Funds		
Reserves, cash flow		
Financial institutions		
Stock Market		
Others		

1=very important, 2= important, 3= not important, 4= not important at all.

22. Is it easier or more difficult for the dairy industry to source capital funds than it was?

23. In your opinion, what significant influences do the sources of finance have on the dairy industry?

24. What influence has the change to PLC status had on the Irish dairy Industry?

Specifically:

Dimension	Influence
Availability of Finance	
Decision Making	
Strategic Direction	

25. In your opinion, how is the dairy industry involved in the international money market?

26. What influence does the international money market, (currency, stocks) have on the dairy industry?

27. How does this compare with the situation in the 1970s and 1980s

### E. National and EU Policy

28. In your opinion, is there a difference between dairy farmer and dairy processing industry policy interests at National and European level. If so, how do they differ?

National Level	
EU Level	

29. Where has the initiative for introducing, amending and withdrawing (1) policy objectives and (2) policy mechanisms come from?

	Policy objectives	Policy mechanisms
Introduction		
Amendments		
Withdrawal		

1. Industry management, 2. Industry representative orgs, 3. Farm organisations, 4. Trade Unions, 5. Politicians, 6. Dept Agric Food & Forestry, 7. EU 8. Other  
(If more than 1 rank order in importance)

30. How does the industry influence policies at National level?

Policy Area	Influence
Currency	
Food Safety	
Environmental Legislation	
Health and Safety	
Labour Legislation	
Information disclosure	
Other	

31. How has dairy industry influence on policy developments changed over the last two decades?

32. Describe how successful the dairy industry is in influencing these policies at present?

(\*)

Policy Area	Level of Success (Examples*)
Currency	
Food Safety	
Environmental Legislation	
Health and Safety	
Labour Legislation	
Information disclosure	
Other	

**F. European Union**

33. Does the dairy industry try to influence policies at European level ? If so how?

34. Specifically, How did the dairy industry influence:

Policy Issue	Influence
Introduction quotas 1984	
1992 CAP reform	
Current debate on dairy policy reform	

35. How has the impact of CAP policies on the dairy industry been different pre- and post-quota?

36. What has been the impact of the creation of the Single Market 1992 on the dairy industry?

### G. Adhesion to Global regime

37. What influence does the increasing globalisation have on the industry?

Aspect of Globalisation	Influence on the industry
Demands of international markets	
International competitor economies of scale	
Internationalisation of Irish dairy Companies	
Internationalisation of Capital	
International regulation (GATT)	
Other	

38. Is exposure of the dairy industry to global influences increasing? If so, how does this manifest itself?

39. As regards regulation of the dairy industry, in your opinion is the present day trend toward Examples (\*)

Level	More Regulation	No Change	Less Regulation
Local			
National			
European			
International			

Foreign investment.

40. How do TNC'S influence the dairy industry? (e.g. of a dairy related TNC: Nestle, Unilever, Wyeth).

41. Inward foreign investment appears to be less a feature of the Danish/Irish dairy processing industry than it used to be. Why do you think this is so?

42. There appears to be substantial outward investment (i.e. foreign acquisition) activity in the Irish/Danish dairy processing industry at present. Why do you think this is so?

## H. Hegemony

43. In your opinion, which are the most influential companies/representative groups for the Irish/Danish dairy processing industry?

44. What areas of business/investment/policy have they been able to influence? Examples  
(\* )

45. Are there alliances within the industry? If so, what are they?

	Alliances at national level	Alliances at European level
Alliance composition		
Alliances on what issues		

46. Is there divergences/conflict within the industry? Between what company's representative bodies is there conflict?

On what issues does the industry clash?

	Conflict at national level	Conflict at European level
Between which cos/rep. bodies.		
Disagreement on what issues		

47. How have the alliances within the dairy industry changed over the last two decades?

48. How has the conflict/differences within the dairy industry changed over the last two decades?

**I. Questions for Supplier Companies**

49. How long has your company been supplying goods or services to the dairy processing industry?

50. What kind of goods and or services does your company provide to the dairy processing industry?

51. How in your opinion, has the demands (i.e. price, quality, level of service) of the dairy processing industry for your particular product or service changed over the past two decades?

52. How in your opinion has the nature and location of competition for supplying your services/goods to the dairy industry changed?

53. As the dairy industry has internationalised, in your opinion have home based supplier companies benefited from work in the foreign subsidiaries?

**J. Questions for customer companies**

54. What type of products does the industry supply to your company?

55. What % of the products are branded/ unbranded? (if relevant)

56. What demands are placed on dairy processing companies as suppliers in terms of:

	Demands
Price	
Quality	
Service	
Other	

57. How have the demands placed on customers of the dairy industry changed over the last decade?

58. What in your opinion has been the impact on the dairy industry of the changing demands of customers?

59. As suppliers how does the Irish dairy industry compare to international food/dairy companies in terms of:

	Compare to International Cos.
Price	
Quality	
Service	
Other	

## Appendix 2

### Interview Format for Different Actor Groups/Interviewees

Interview schedule sections:

- A. Industry structure- 7 questions
- B. Competition - 4 questions
- C. Employee relations- 9 questions
- D. Financial Influences- 7 questions
- E. National Government -5 questions
- F. European Union - 4 questions
- G. Global Regime - 6 questions
- H. Hegemony - 6 questions
- I. Supplier Companies – 5 questions
- J. Customer Companies - 6 questions

Actor Groups Interviewed	Interviewee and sections covered in interview.
Dairy processing industry	CEO-A,E,F,G,H. Board Member-A,G,H. Personnel Exec-A,C,G,H. Marketing Exec-A,B,G,H. Financial Exec-A,D,G,H.
Representative Organisations	Trade Unions-C,G,H. Financial Institutions-D,G,H. Industry Rep. Bodies-A,E,F,H. Farm Rep. Bodies-A,E,F,H.
Customers and suppliers of the industry	Industry customers-J,A,B,G,H. Industry suppliers-I,A,G,H.
Government/government agencies/political	Govt/agency officials-A,E,F,H. Politicians-A,E,F,H.

### Appendix 3

Mr. F.A. Christiansen,  
Group Executive Director  
MD Foods,  
Skanderborgvej 277,  
DK-8260 Viby J,  
Denmark.

20 October 1997

Dear Mr. Christiansen,

As part of an Irish Government funded programme of research on competitiveness in the Irish food industry, I am undertaking a comparative study on the competitiveness of the Danish and Irish dairy processing industries.

An important part of the data gathering process for the Irish/ Danish comparative study is the interviewing of personnel in the Irish and Danish dairy industries, supplier and customer companies, representative organisations, trade unions, financial institutions and Government agencies. Over 40 interviews have already been completed for the study.

I wish to include your organisation in the study and would like the opportunity to interview yourself and a senior executive in marketing, personnel and finance and a member of your board. The focus of the interviews (45 minutes each) will be on the industry in general rather than on individual companies. Attached is an outline of the issues I propose to address at the interview. Any views expressed will be treated in the strictest confidence. The results of the study will be made available to the industry and relevant organisations.

I will contact you by phone to make arrangements if you can participate. I plan to be in Denmark from Nov 3rd to the 8th and would hope to include an interview with you and your colleagues during this time.

Yours sincerely,

Pat Enright  
College Lecturer

## Appendix 4

### Ethnography Filenames Coding System

IRL=Ireland

DK=Denmark

Respondent Type	Filenames
Dairy Processing Industry	100-199
Trade Unions	200-299
Financial Institutions	300-399
Industry Representative Bodies	400-499
Farm " " "	500-599
Industry Customers	600-699
Industry Suppliers	700-799
Government	800-899
Political	900-999

## Appendix 5

### Code Book

#### CODE BOOK for THESIS A

TYPE	CODEWORD	PARENT	DEFINITION
-----	-----	-----	-----
Text	CM-CHG	COMP	How has nature of competition changed over last 10 years
Text	CM-IMP	COMP	Impact of the competition on the industry
Text	CM-MKT	COMP	Location/nature of market served
Text	CM-TYP	COMP	Type of competition encountered
Par		COMP	Comments related to competition
Text	CT-BG	CUST	Background on customer companies
Text	CT-D	CUST	Demands placed by you on the industry
Text	CT-DCHG	CUST	Demands changed in the last decade
Text	CT-DIMP	CUST	Impact of the changing demands of the customers on the industry
Text	CT-VINT	CUST	How does industry compare to international food dairy companies as suppliers.
Par	CUST		Comments re customer companies of the industry
Par	FIN		Comments re finance
Text	FN-DFFSCE	FIN	Difficulty of sourcing funds
Text	FN-IM	FIN	Involvement in the international money market
Text	FN-IM7080	FIN	How the present situation different compared to the 70s and 80s.
Text	FN-IMINF	FIN	Influence of the international money market
Text	FN-PLCINF	FIN	Influence of PLC status on the Industry
Text	FN-SCE	FIN	Sources of finance
Text	FN-SCEINF	FIN	Influence/impact on sources of funds
Text	GL-ESC	GLOBAL	Influence of international economies of scale
Text	GL-GI	GLOBAL	Globalisation increasing??

TYPE	CODEWORD	PARENT	DEFINITION
-----	-----	-----	-----
Text	GL-ICAP	GLOBAL	Influence of internationalisation of Capital
Text	GL-IINV	GLOBAL	Inward investment change?
Text	GL-IMKT	GLOBAL	Influence of the demands of international markets.
Text	GL-INT	GLOBAL	Influence of internationalisation of the domestic industry.
Text	GL-OINV	GLOBAL	Outward investment change??
Text	GL-R	GLOBAL	Regulation-development, change.
Text	GL-TNCINF	GLOBAL	Influence of TNC's.
Text	GL-WTO	GLOBAL	Influence of international regulation GATT/WTO.
Par		GLOBAL	Comments re global/globalisation.
Par	HEG		Comments re hegemony.
Text	HG-A	HEG	Alliances in the industry.
Text	HG-ACHG	HEG	Change in alliances.
Text	HG-C	HEG	Conflicts in the industry.
Text	HG-CCHG	HEG	Conflict changes.
Text	HG-INF	HEG	Most influential co/rep group.
Text	HG-INFW	HEG	Why the most influential.
Par		LABOUR	Comments on labour relations.
Text	LB-CHG	LABOUR	Change since 70s Gender.
Text	LB-CHPT	LABOUR	Changes since 70s f/t-p/t.
Text	LB-CHW	LABOUR	Changes since 70s wage rates vav national.
Text	LB-CHWC	LABOUR	Changes since 70s working conditions.
Text	LB-COP	LABOUR	Level of co-operation between employees and Management.
Text	LB-ER	LABOUR	Description of employee relations.
Text	LB-I7080	LABOUR	Issues 70s and 80s.
Text	LB-I90	LABOUR	Issues 90s.
Text	LB-IR90	LABOUR	How issues resolved 90s.
Text	LB-IRCHG	LABOUR	Issues resolved differently before 90s.

TYPE	CODEWORD	PARENT	DEFINITION
-----	-----	-----	-----
Text	LB-MT	LABOUR	Management techniques adopted in ER area.
Text	LB-MTIMP	LABOUR	Impact-consequences of implementation of these techniques.
Text	L-DFDP	POLICY	Differences between dairy farmer and dairy processor interests at policy level.
Text	PL-EUINF	POLICY	Influence at EU level.
Text	PL-IMPQT	POLICY	Impact of quota policy.
Text	PL-IMPSEA	POLICY	Impact of SEA policy at EU level.
Text	PL-INF	POLICY	Industry influence on policy.
Text	PL-INFQ	POLICY	Influence/impact of quota policy.
Text	PL-INT	POLICY	Sources of policy initiatives.
Par		POLICY	Comments related to national and European policy and its influence.
Text	SP-BG	SUPP	Suppliers background.
Text	SP-CM	SUPP	How has competition changed-nature and location.
Text	SP-D	SUPP	Demands by the industry on suppliers changed.
Text	SP-INT	SUPP	Internationalisation-benefited suppliers?
Text	ST-COP	STRUCT	Influence of co-operative ownership on development.
Text	ST-FCT	STRUCT	Factors influencing the present structure.
Text	ST-HIS	STRUCT	Key events in the history of the dairy industry.
Text	ST-PLC	STRUCT	Reasons for change to PLC status.
Text	ST-PRES	STRUCT	View of present structure.
Text	ST-STATE1	STRUCT	State role in shaping industry structure.
Text	ST-STATE2	STRUCT	Current state role in influencing industry structure.
Par		STRUCT	Comments on industry structure.
Par		SUPP	Comments re supplier companies.

## **Appendix 6**

### **Validating the Interviews: Key Points Considered**

1. Economies of scale are important to the European dairy industry as a counter to the influence of the European retail sector in terms of range of products and market share. In commodity markets economies of scale are more important from a cost point of view. The former is more important in Europe to date, the latter will be more important in the future.

2. For dairy exporting countries in Europe, the old regime of 1980's based on export commodities to third countries, has given way to, a new regime based on accessing value added markets within EU and gaining a foothold in fast growing Asian and South American markets.

3. Internationalisation by some European dairy co-operatives has virtually eliminated any difference between them and the large non-co-operatively owned dairy companies (same profit, growth, R&D, investment needs).

4. The co-operative ownership base in the European dairy industry operates as a barrier to the large private or publicly quoted companies gaining a greater foothold in the European dairy industry.

5. The EU support system is a barrier to full integration of the European dairy processing industry in the global system.

6. With the emergence of larger internationally orientated companies in much of the EU, marketing boards/dairy boards have a less prominent role to play.

## **Appendix 7**

### **Validating Interviews:**

1. Adrie Zwanenberg-Rabobank, Netherlands.
2. Erhard Richards- ZMP, Germany.
3. Tom Suber- US Dairy Export Council.
4. Toon VanDeVen- European Dairy Association.

## Appendix 8

### Irish Interviews:

- \*Peter Kelliher, Personnel Officer, Dairygold 20/06/97.
- \*Eamon O'Connor, Site Manager, Nutricia Irl, 21/06/97.
- \*John Dwan, Regional Secretary, SIPTU, 24/06/97.
- \*Frank Allen, President, ICMSA, 24/06/97.
- \*Con Odlum, Managing Director, E.G.Pettit, 27/06/97.
- \*Kieran Evans, Sales Manager, Food Ing, Dairygold, 27/06/97.
- \*Peter Kiely, National Chairman, Macra Na Feirme, 30/06/97.
- \*Pat Gaynor & J. Buttner, Corp. Banking, Ulster Bank, 2/07/97.
- \*Liam Igoe, Analyst, Goodbody Stockbrokers, 2/07/97.
- \*Jim McCarthy, Senior Manager, Corporate Lending, AIB, 2/07/97.
- \*Miah Buckley, Dairy Buyer, Power Supermarkets Ltd, 2/07/97.
- \*John Mc Donnell, Reg. Sec, SIPTU, 7/07/97.
- \*Dermot Mahon, Regional Officer, MSF, 8/07/97.
- \*John O'Reilly, Senior Food Analyst, Davy Stockbrokers, 9/07/97.
- \*Joe Gill, Food Analyst, Riada Stockbrokers, 9/07/97.
- \*Barry Walsh, Manager-Corporate Lending, ACC, 10/07/97.
- \*Catherine Lascuresses, Exec. Sec. Dairy Comm. IFA, 10/07/97.
- \*Tom Wall, Industrial Officer, ICTU, 10/07/97.
- \*John Larkin, Sales Director, Sealcon Ltd, 11/07/97.
- \*Patrick Russell, Dairy Buyer, Dunnes Stores, 15/07/97.
- \*Finbarr O'Neill, Director-Corporate Banking, Bol, 15/07/97.
- \*Martin Varley, Director-Policy Development, ICOS, 15/07/97.
- \*Tadhg Curtis, Branch Secretary, SIPTU, 17/07/97.
- \*Sharon Buckley, Trad Mgr. Dy./Chill Pdts, SV/Cent Dist. 17/7/97.
- \*Michael Lovett, Gen. Mgr, Foods, Dairygold, 18/07/97.
- \*Tom O'Brien, Tresuary Manager, Dairygold, 18/07/97.
- \*Michael Forde, Group Personnel Mgr, Dairygold, 18/07/97.

- \*Liam Nolan, Personnel Dir., Wyeth Nutritionals, 22/07/97.
- \*Andy Hussey, Fin & Admn Dir., Wyeth Nutritionals, 22/07/97.
- \*Denis Cronin, Chairman, Dairygold, 25/07/97.
- \*Pat Ivory, Asst. Director, IDIA, 30/07/97.
- \*Michael Dowling, Former Secretary DAFF, 16/4/98.
- \*Mark Hurley, Managing Director, C. Hansen Ireland, 22/06/98.
- \*Tom Tynan, Former Policy Advisor to Min Ag (IAWS) 23/06/98.
- \*Grainne McGucken & M. Winkleman, Milk Policy Division DAFF, 23/06/98.
- \*Michael O'Kennedy T.D., Former Minister for Agriculture 1987-1992.
- \*Conor Lanigan, Gen Mgr, APV Irl, 3/11/98.
- \*Lucy O'Flaherty & Maureen Holden, Irish Countrywomens Association, 18/11/97 & 17/12/97 No interview, 2 completed questionnaires returned only:

## Appendix 9

### Danish Interviews:

- \*J. Larsen, N. Vestegaard and A N Other, Unibank, 8/9/97.
- \*Kjeld Hansen, Danish Farmers Union, 8/9/97.
- \*Claus Bjorn, University of Copenhagen, 9/9/97.
- \*Henrik Vesth, BG Bank, 10/9/97.
- \*Kjeld Kagelund, Family Farmers Association 10/9/97.
- \*Ebbe Kajberg, Jørgen Melchior & Jorgen Christensen, Den Danske Bank. 10/9/97.
- \*Søren Buchmann, Federation of Danish Co-operatives, 11/9/97.
- \*Jorgen Maltha Rasmussen, Mejeribrugets Arbejdsgiverforening, 11/9/97.
- \*Poul Kronvold, NNF Danish Food and Allied Workers Union, 11/9/97.
- \*Neils Madson, Danish Agricultural Council 12/9/97.
- \*Kjeld Rasmussen, Danish Dairy Board, 15/9/97.
- \*Petr Thomsen, Danske Mejeristers Fagforening, 16/9/97.
- \*K. Mark Christiansen, Foreningen mejeriledere og funktionærer 17/9/97.
- \*Borne Andersen, Them Andelsmejeri, 3/11/97.
- \*Jens Majgaard, Dir Intr Rels, MD Foods, 4/11/97.
- \*Neils Ostergaard, Marketing Manager, MD Foods, 4/11/97.
- \*Per Gran, Financial Director, MD Foods, 4/11/97.
- \*Henreik Korsbo, Tholstrup Cheese, 5/11.97.
- \*Petr Andersen, Head of Division EU Market Organisation, Ministry of Food Agriculture and Fisheries, Denmark. 8/12/97.
- \*Jacob Buksti M.P. (Social Democrat) Folketinget, Copenhagen. 8/12/97.
- \*Bendt Bendtsen, Chairman Butterdane, Member Board Danish Dairy Board, Member representative board MD Foods 9/12/97.
- \*Fleming Mogensen NNF Official (part-time) also sales in APV, 10/12/97.
- \*Jens Christiansen, Product Manager, Bread & Dairy FDB, 11/12/97.
- \*Carston Rou, Export Manager, Chr Hansen. 11/12/97.
- \*Preben Christiansen, Sales & Marketing Director, APV Danmark, 12/12/97.

\*Laurits Tørnaes (Liberal Party) Mayor, Ribe Amt (ex-Minister of Agric. 1987-1993)  
12/12/97.

\*Morten Blom Andersen, Assistant Secretary, Agricultural Ministry 23/2/98.

\*Fleming Brandt, Supply Chain/ Export Manager, Nestle Denmark, 25/2/98.

\*Peter Holmskov, Commercial Director, Tetra Pak, Energyvej 30, 25/2/98.

\*Svend Eric Neilsen, Trade Manager, Dansk Supermarked, 26/2/98.

\*Mogens Poulsen, marketing Manager, Thise Mejeri, 26/2/98.

\*Henrik Tolboe, Saleschief & Torben Wiborg Jensen, Application Manager Dairy, Danisco  
Ingredients. 27/2/98.

## Appendix 10

### Foreign Investment in Irish Dairy Manufacturing 1940s-1970s

Company	Country	J. Venture	Activity	Location	Year	Status at 1996
Rowntree Mack.	UK	None	Choc crumb	Mallow, Co. Cork.	1946	In operation
Urney	UK	None	Choc crumb	Dublin	1940's?	Closed.
Fry Cadbury	UK	None	Choc crumb	Rathmore, Co. Kerry.	1948	In operation
Hoffmeyer	Ger.	None	Soft cheese	Wexford	1960	Acquired by Unigate (1963) for cheese mfg. In operation
Mattheis and Skailes	UK	DDC	Cheese	Limerick	1961	Closed.
Unigate and Holland	UK	Ballyclough	Cheddar cheese	Rathduff, Co. Cork.	1963	Bought by Ballyclough. Closed in 1992.
Unigate	UK	Dungarvan	Cheddar cheese	Kilmeaden, Co Waterford.	1964	Bought by Waterford.
Unigate	UK	Avonmore	-	Ballyraggett Co. Kilkenny.	1970's	Bought by Avonmore in 1978. In operation.
Express Dairies	UK	4 West Cork Co-ops.	Cheddar cheese	Ballineen Co. Cork.	1968	Bought out by local co-ops in 1992. In operation.
Express Dairies	UK	Golden Vale	Cheddar cheese	Newcastle West, Co. Limerick.	1971	Bought out by Golden Vale. In operation.

Company	Country	J. Venture	Activity	Location	Year	Status at 1996
Morinaga	Japan	Donegal Milk Products	Cheddar cheese	Letterkenny Co. Donegal.	1960's	-
Pritchett (MacCormac Milk Pdts.)	UK	None	Milk powder	Killeshandra Co. Cavan.	1960's	Closed.
Glaxo	US	None	Milk powder	Lough Egish, Co. Monahan.	1966	Closed in 1982
Express Ds.	UK	None	Milk powder	Virginia, Co. Cavan.	1972**	Bought by Waterford foods in 1992.
Shannonside (formerly Pritchett Conn. Fds)	UK	None	Milk powder	Ballyhadereen Co. Roscommon.	1972	Purchased by local co-ops. In operation.
Borden Co.	US	None	Milk Powder	Mallow, Co. Cork.	1961	In operation (Closed in 1998).
Wyeth	US?	None	Milk Powder	Askeaton, Co. Limerick.	Early 1970's	In operation
Abbotts	US	None	Infant food	Cootehill, Co. Cavan.	Early 70's	In operation
Cow & Gate	NL	None	Infant food	Wexford	1960's	In operation

\*\*Originally owned by Ambrosia.

Source: Assembled by the author from documentary sources.

## Appendix 11

### Major Foreign Dairy Related Acquisitions by Irish Dairy Companies

Irish Co.	Year	Acquisition Co.	Country	Business	Cost
Kerry	1987	Primas Fd Ing.	US	Food Ing.	n.a.
Kerry	1988	Beatreme	US	Food Ing.	US\$120m
Avonmore	1988	Roy's Dairies	US	Dairy Proc.	US\$9.5m
	1988	Glenmills Dairies	UK	Liq. milk	£0.5m
Avonmore	1989	St Falbo Cheese	US	Cheese mfg.	n.a.
	1989	Golden Dairies	UK	Mozzarella	n.a.
Waterford	1989	Heald Foods	UK	Milk/F. Juice	£43.0
Golden Vale	1989	DPP	UK (NI)	Proc. cheese	£5.0m
	1989	Ceredigan	UK	Liq. milk	n.a.
	1989	Golden Cow	UK	Butter spreads	n.a.
Tipperary	1989	CPL Davoine	France	Cheese	n.a.
Avonmore	1990	Birmingham Dairies	UK	Liq. milk	stg£5.7m
	1990	Goodwins	UK	Liq. milk, cheese	stg£7.7m
	1990	Handsworth	UK	Liq. milk	
Kerry	1990	Milac GmbH	Germany	Food Ing.	n.a.
	1990	Semmons Taylor	UK	Food Ing.	n.a.
Waterford	1990	Galloway West	US	Dairy Products	£44.9
	1990	Western Cheese	UK	Cheese	n.a.
Golden Vale	1990	Bridgend	UK	Liq. milk	£3.6m
Waterford	1991	U.C. Dairies	UK	Milk	£40.8
Avonmore	1991	Caterpak	UK	Grated cheese	£0.4m
Avonmore	1992	Wards Cheese	US	Cheese mfg.	n.a.
	1992	Whitecroft Dairies	UK	Liq. milk	£4.4m
	1992	Wiltshire Dairies	UK	Liq. milk	n.a.
	1992	Hampshire Dairies	UK	Liq. milk	n.a.
	1992	Golden Foods(*jv)	Belgium	Cheese mfg.	n.a.
	1992	Churchfield	UK	Liq. milk	stg£5.7
	1992	Parker	UK	Liq. milk	stg£4.9
	1992	Paszto Kft	Hungary	Liq. milk??	n.a.

Irish Co.	Year	Acquisition Co.	Country	Business	Cost
Golden Vale	1993	Leckpatrick	UK (NI)	Dairy pdts.	£22.2m
	1993	Vonk Food Holland	Netherlands	Processed Cheese	
	1993	A/S Vejle	Denmark	Margarine	
Waterford	1993	Durham Dairies	UK	Liq. milk	£7.7m
	1993	Express (NI)	UK	Mozzarella	n.a.
Avonmore	1993	Dairycrest	UK	Liq. milk	£21.6m
Waterford	1994	Greencroft Dairies	UK	-	n.a.
Kerry	1994	DCA	*US	-	\$402m
Dairygold	1994	Horlicks	UK	Cheese	n.a.
Waterford	1995	TCC	UK	Dairy Foods	£125.0
Kerry	1998	Delgety	Europe	Food Ingredients	£394.0
Waterford	1995	T C C	UK	Dairy Foods	£125.0

Source: Assembled by the author from Company Annual Reports & Eurofood & Drink (1994).

\*Also, activities in UK, Canada, Australia and Poland.

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